Saúde Mental Positiva em Pessoas com Restrição Social - O Caso da COVID 19

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LISTA DE ABREVIATURAS

MH – Mental Health

MHKQ – Mental Health Knowledge Questionnaire

MHPK-10 – Mental Health-Promoting Knowledge

MM-PMH – Multifactor Model of Positive Mental Health

PMH – Positive Mental Health

PMHQ – Positive Mental Health Questionnaire

PV – Psychological Vulneravility

PVS – Psychological Vulneravility Scale

ULSNE – Unidade Local de Saúde do Nordeste

URV – Universidade de Rovira i Virgili

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RESUMO

Introdução: A Saúde Mental é definida como o estado de bem-estar no qual a pessoa utiliza as suas capacidades, para fazer face ao *stress* normal da vida, trabalhar de forma produtiva e contribuir para a comunidade em que se insere, e não apenas a ausência de distúrbios mentais. O aparecimento e a propagação da COVID 19 tiveram implicações não só na saúde física mas no bem-estar psicológico dos indivíduos. Entre as inúmeras consequências psicológicas decorrentes da pandemia, a restrição social, resultante de medidas como obrigatoriedade de cumprir quarentena e manter o distanciamento social revelaram um impacto notório na Saúde Mental da população em geral. Desta forma, quando surge um desequilíbrio que abarca sofrimento e/ou incapacidade, é impreterível proporcionar à pessoa todos os meios de capacitação com vista à otimização do seu potencial. Assim, nos últimos anos verificou-se um interesse crescente sobre um novo conceito de Saúde Mental – A Saúde Mental Positiva que ressalta a forma como a Saúde Mental pode ser influenciada pelas dimensões positivas das experiências. Deste modo, a Saúde Mental Positiva pode ser definida como um valor em si ou como a capacidade de perceber, compreender e interpretar o contexto e adaptar-se a ele, se necessário, com o objetivo de promover a autonomia, integração e adaptação. Desta forma, os conceitos da Saúde Mental Positiva têm tido uma valorização crescente na investigação em saúde nomeadamente em situações adversas como a necessidade de restrição social.

Objetivo Geral: Esta investigação teve como principal objetivo avaliar o impacto dos níveis de Saúde Mental Positiva em pessoas com restrição social – O caso da COVID 19.

Metodologia: Foi efetuada uma investigação de natureza quantitativa através da realização de três estudos sequenciais. O primeiro estudo teve como principal objetivo avaliar a Saúde Mental Positiva em indivíduos de uma região de Portugal, submetidos a teste por suspeita de infeção por COVID 19. Neste estudo foram aplicados os seguintes instrumentos: um questionário de caracterização sociodemográfica, o Questionário de Saúde Mental Positiva e a Escala de Vulnerabilidade Psicológica. O segundo estudo foi descritivo, correlacional e transversal cujo principal objetivo foi avaliar o impacto da pandemia na Saúde Mental Positiva de indivíduos, com suspeita de infeção por COVID 19, tendo em conta os seus conhecimentos sobre Saúde Mental bem como os seus fatores comportamentais. Os instrumentos utilizados foram um questionário de

caracterização sociodemográfica; Questionário de Saúde Mental Positiva, O questionário de conhecimentos de Saúde mental e o questionário: "o que é bom para uma boa Saúde Mental". O terceiro estudo realizado foi um estudo quantitativo, longitudinal, descritivo e correlacional realizado dois anos após o início da pandemia. Os objetivos deste estudo foram avaliar a Saúde Mental Positiva dos indivíduos de uma região de Portugal, submetidos a teste por suspeita de infeção por COVID 19 e comparar a variável Vulnerabilidade Psicológica com a Saúde Mental Positiva durante e após a fase pandémica. Neste estudo foram aplicados os seguintes instrumentos: um questionário de caracterização sociodemográfica, o Questionário de Saúde Mental Positiva e Escala de Vulnerabilidade Psicológica.

Em todos os estudos, procedeu-se à análise descritiva da amostra através de medidas de tendência central. Relativamente aos instrumentos utilizados, todos foram submetidas a uma análise de fiabilidade interna através do *Alpha de Cronbach*. Utilizou-se o teste t de *student* para a comparação entre duas amostras independentes, sendo que valores de *p* inferiores a 0,05 foram considerados como estatisticamente significativos.

Resultados: No primeiro estudo, verificou-se que aproximadamente 50,4% dos inquiridos obtiveram valores de Saúde Mental Positiva global que os colocam no quartil 50 (somatório do valore de Saúde Mental Positiva global igual ou superior a 124 e inferior a 144 pontos). Verificou-se também uma diferença estatisticamente significativa entre a Saúde Mental Positiva do sexo feminino e masculino, sendo que as mulheres apresentam maior Vulnerabilidade Psicológica e menor Saúde Mental Positiva global. O segundo estudo mostrou que quem não tem problemas de saúde mental tem resultados significativamente superiores de Saúde Mental Positiva e quanto aos fatores comportamentais quem dorme horas suficientes (p<0,001), pratica exercício físico regular (p<0,001), tem uma alimentação considerada saudável (p<0,001), não toma medicação regular (p<0,001) e quem tem uma maior conscientização sobre atividades de promoção da Saúde Mental (p<0,001), apresenta resultados significativamente superiores de Saúde Mental Positiva. Relativamente ao terceiro estudo, os resultados permitem-nos afirmar que existe a possibilidade da Saúde Mental Positiva ser um traço "estável" da pessoa tendo em conta a consistência dos resultados do somatório da Saúde Mental Positiva (p=0,425) e do somatório da Vulnerabilidade Psicologia (p=0,496) nas duas avaliações.

Conclusões: As principais conclusões foram:

- As pessoas em restrição social do sexo feminino apresentam uma maior Vulnerabilidade Psicológica e um índice de Saúde Mental positiva mais baixo.
- As pessoas com maior Literacia referem níveis mais elevados de Saúde Mental Positiva.
- Os níveis de Saúde Mental revelaram-se estáveis ao longo da restrição social e encontrou-se uma associação negativa com Vulnerabilidade Psicológica, ou seja, níveis de Saúde Mental Positiva mais elevados estão associados a menor Vulnerabilidade Psicológica.

Com base nestes resultados sugere-se uma maior intervenção na promoção da Saúde Mental Positiva como estratégia para preservar a Saúde Mental das pessoas em restrição social e minimizar os seus potenciais impactos.

Palavras Chave: Saúde Mental Positiva; Vulnerabilidade Psicológica; Restrição Social; COVID 19

RESUMEN

Introducción: La salud mental se define como el estado de bienestar en el que una persona utiliza sus capacidades para afrontar las tensiones normales de la vida, trabajar de forma productiva y contribuir a su comunidad, y no sólo la ausencia de trastornos mentales. La aparición y propagación del COVID-19 ha tenido implicaciones no sólo para la salud física, sino también para el bienestar psicológico de las personas. Entre las innumerables consecuencias psicológicas de la pandemia, la restricción social, derivada de medidas como la cuarentena obligatoria y el distanciamiento social, ha tenido un impacto notable en la salud mental de la población general. Por lo tanto, cuando se produce un desequilibrio que implica sufrimiento y/o discapacidad, es esencial proporcionar a la persona todos los medios para optimizar su potencial. En los últimos años, ha crecido el interés por un nuevo concepto de Salud Mental -la Salud Mental Positiva- que hace hincapié en cómo la Salud Mental puede verse influida por las dimensiones positivas de las experiencias. De este modo, la Salud Mental Positiva puede definirse como un valor en sí mismo o como la capacidad de percibir, comprender e interpretar el contexto y adaptarse a él, si es necesario, con el objetivo de promover la autonomía, la integración y la adaptación. De este modo, los conceptos de Salud Mental Positiva han sido cada vez más valorados en la investigación sanitaria, especialmente en situaciones adversas como la necesidad de restricción social.

Objetivo General: El objetivo principal de esta investigación fue evaluar el impacto de los niveles de Salud Mental Positiva en personas con restricción social - El caso de COVID 19.

Metodología: La investigación cuantitativa se llevó a cabo a través de tres estudios secuenciales. El objetivo principal del primer estudio fue evaluar la Salud Mental Positiva en indivíduos de una región de Portugal que habían sido sometidos a pruebas de sospecha de infección por COVID 19. En este estudio se utilizaron los siguientes instrumentos: un cuestionario de caracterización sociodemográfica, el Cuestionario de Salud Mental Positiva y la Escala de Vulnerabilidad Psicológica. El segundo estudio fue un estudio descriptivo, correlacional y transversal cuyo objetivo principal fue evaluar el impacto de la pandemia en la Salud Mental Positiva de indivíduos con sospecha de infección por COVID 19, teniendo en cuenta sus conocimientos sobre Salud Mental así como sus factores de comportamiento. Los instrumentos utilizados fueron un cuestionario de caracterización sociodemográfica, el Cuestionario de Salud Mental

Positiva, el Cuestionario de Conocimientos de Salud Mental y el cuestionario "Qué es bueno para una buena Salud Mental". El tercer estudio fue un estudio cuantitativo, longitudinal, descriptivo y correlacional realizado dos años después del inicio de la pandemia. Los objetivos de este estudio fueron evaluar la Salud Mental Positiva de los indivíduos de una región de Portugal que habían sido sometidos a pruebas de sospecha de infección por COVID-19 y comparar la variable Vulnerabilidad Psicológica con la Salud Mental Positiva durante y después de la fase pandémica. En este estudio se utilizaron los siguientes instrumentos: un cuestionario de caracterización sociodemográfica, el Cuestionario de Salud Mental Positiva y la Escala de Vulnerabilidad Psicológica.

En todos los estudios, la muestra se analizó descriptivamente utilizando medidas de tendencia central. Se analizó la fiabilidad interna de todos los instrumentos utilizados mediante el alfa de Cronbach. Se utilizó la prueba t de Student para comparar dos muestras independientes, y los valores p inferiores a 0,05 se consideraron estadísticamente significativos.

Resultados: En el primer estudio, se observó que aproximadamente el 50,4% de los encuestados obtuvieron valores globales de Salud Mental Positiva que les situaban en el cuartil 50 (suma de valores globales de Salud Mental Positiva iguales o superiores a 124 e inferiores a 144 puntos). También hubo una diferencia estadísticamente significativa entre la Salud Mental Positiva femenina y masculina, ya que las mujeres mostraron una mayor Vulnerabilidad Psicológica y una menor Salud Mental Positiva global. El segundo estudio mostró que aquellos que no tienen problemas de salud mental tienen puntuaciones significativamente más altas en Salud Mental Positiva, y con respecto a los factores de comportamiento, aquellos que duermen suficientes horas (p<0,001), practican ejercicio físico regular (p<0,001), comen una dieta saludable (p<0,001), no toman medicación regularmente (p<0,001) y que tienen un mayor conocimiento de las actividades de promoción de la Salud Mental (p<0,001), tienen puntuaciones significativamente más altas en Salud Mental Positiva. Respecto al tercer estudio, los resultados permiten afirmar que existe la posibilidad de que la Salud Mental Positiva sea un rasgo «estable» de la persona, dada la consistencia de los resultados de la suma de Salud Mental Positiva (p=0,425) y la suma de Vulnerabilidad Psicológica (p=0,496) en las dos evaluaciones.

Conclusiones: Las principales conclusiones fueron:

- Las personas en situación de restricción social que son mujeres presentan una mayor Vulnerabilidad Psicológica y un menor índice de Salud Mental Positiva.

- Las personas con mayor nivel de Alfabetización presentaron mayores niveles de Salud Mental Positiva.

- Los niveles de Salud Mental se mantuvieron estables a lo largo de la restricción social y se encontró una asociación negativa con la Vulnerabilidad Psicológica, es decir, mayores niveles de Salud Mental Positiva se asocian a menor Vulnerabilidad Psicológica.

En base a estos resultados, sugerimos una mayor intervención para promover la Salud Mental Positiva como estrategia para preservar la Salud Mental de las personas en restricción social y minimizar sus potenciales impactos.

Palabras Clave: Salud Mental Positiva; Vulnerabilidad Psicológica; Restricción Social; COVID 19

ABSTRACT

Introduction: Mental health is defined as the state of well-being in which a person uses their abilities to cope with the normal stresses of life, work productively and contribute to their community, and not just the absence of mental disorders. The emergence and spread of COVID 19 has had implications not only for physical health but also for the psychological well-being of individuals. Among the countless psychological consequences of the pandemic, social restriction, resulting from measures such as mandatory quarantine and social distancing, have had a notable impact on the mental health of the general population. Therefore, when an imbalance arises that involves suffering and/or disability, it is essential to provide the person with all the means to optimise their potential. In recent years there has been growing interest in a new concept of Mental Health - Positive Mental Health - which emphasises how Mental Health can be influenced by the positive dimensions of experiences. Thus, Positive Mental Health can be defined as a value in itself or as the ability to perceive, understand and interpret the context and adapt to it, if necessary, with the aim of promoting autonomy, integration and adaptation. In this way, the concepts of Positive Mental Health have been increasingly valued in health research, particularly in adverse situations such as the need for social restriction.

Aim: The main objective of this research was to assess the impact of Positive Mental Health levels on people with social restriction - The case of COVID 19.

Methodology: Quantitative research was carried out through three sequential studies. The main objective of the first study was to assess Positive Mental Health in individuals from a region of Portugal who had been tested for suspected COVID 19 infection. The following instruments were used in this study: a sociodemographic characterisation questionnaire, the Positive Mental Health Questionnaire and the Psychological Vulnerability Scale. The second study was a descriptive, correlational and cross-sectional study whose main objective was to assess the impact of the pandemic on the Positive Mental Health of individuals with suspected COVID 19 infection, taking into account their knowledge of Mental Health as well as their behavioural factors. The instruments used were a sociodemographic characterisation questionnaire, the Positive Mental Health Questionnaire, the Mental Health Knowledge Questionnaire and the "What is good for good Mental Health" questionnaire.

The third study was a quantitative, longitudinal, descriptive and correlational study carried out two years after the start of the pandemic. The aims of this study were to assess the Positive Mental Health of individuals in a region of Portugal who had been tested for suspected COVID 19 infection and to compare the Psychological Vulnerability variable with Positive Mental Health during and after the pandemic phase. The following instruments were used in this study: a sociodemographic characterisation questionnaire, the Positive Mental Health Questionnaire and the Psychological Vulnerability Scale.

In all the studies, the sample was descriptively analysed using measures of central tendency. All the instruments used were analysed for internal reliability using Cronbach's alpha. Student's t-test was used to compare two independent samples, with p-values of less than 0.05 considered statistically significant.

Results: In the first study, it was found that approximately 50.4% of respondents obtained overall Positive Mental Health values that placed them in the 50th quartile (sum of overall Positive Mental Health values equal to or greater than 124 and less than 144 points). There was also a statistically significant difference between female and male Positive Mental Health, with women showing greater Psychological Vulnerability and lower overall Positive Mental Health. The second study showed that those who don't have mental health problems have significantly higher Positive Mental Health scores, and with regard to behavioural factors, those who sleep enough hours ($p<0.001$), practice regular physical exercise ($p<0.001$), eat a healthy diet ($p<0.001$), don't take regular medication ($p<0.001$) and who have a greater awareness of Mental Health promotion activities ($p<0.001$), have significantly higher Positive Mental Health scores. With regard to the third study, the results allow us to state that there is a possibility that Positive Mental Health is a ‘stable’ trait of the person, given the consistency of the results of the sum of Positive Mental Health ($p=0.425$) and the sum of Psychological Vulnerability ($p=0.496$) in the two evaluations.

Conclusions: The main conclusions were:

- People in social restriction who are female have greater Psychological Vulnerability and a lower Positive Mental Health index.

- People with higher Literacy reported higher levels of Positive Mental Health.

- Mental Health levels were stable throughout social restriction and a negative association was found with Psychological Vulnerability, i.e. higher levels of Positive Mental Health are associated with lower Psychological Vulnerability.

Based on these results, we suggest greater intervention to promote Positive Mental Health as a strategy to preserve the Mental Health of people in social restriction and minimise its potential impacts.

Keywords: Positive Mental Health; Psychological Vulnerability; Social Restriction; COVID 19

ENQUADRAMENTO

INTRODUÇÃO

Segundo a World Health Organization (World Health Organization, 2022), a Saúde Mental é definida como o estado de bem-estar no qual a pessoa utiliza as suas capacidades, para fazer face ao *stress* normal da vida, trabalhar de forma produtiva e contribuir para a comunidade em que se insere, e não apenas a ausência de distúrbios mentais. Quando surge um desequilíbrio que abarca sofrimento e/ou incapacidade, é impreterível proporcionar à pessoa todos os meios de capacitação com vista à otimização do seu potencial. Assim, a Saúde Mental é, sem dúvida, um fator fundamental para a qualidade de vida dos indivíduos, sendo determinada pela inter-relação de fatores sociais, psicológicos, biológicos e espirituais. Numa perspetiva holística, a Saúde Mental inclui a capacidade do indivíduo para apreciar a vida e procurar o equilíbrio entre as atividades e os esforços para atingir a resiliência psicológica (Sá, 2010).

De uma forma geral, as doenças mentais têm um grande peso quando se fala de saúde na Europa, sendo o seu impacto na qualidade de vida maior do que o das doenças crónicas, como diabetes, doenças cardiovasculares e respiratórias. Por esse motivo, torna-se imprescindível não apenas cuidar de problemas de Saúde Mental e tentar reduzir a sua incidência, mas também fornecer os recursos necessários para melhorar a Saúde Mental daqueles que não são doentes (Mantas Jiménez et al., 2015), e conseguir capacitá-los para situações adversas inesperadas.

Tendo em conta a situação recente de pandemia (COVID 19) e o estado de emergência que se viveu um pouco por tudo o mundo, a maioria da população enfrentou e continua a enfrentar diariamente elevadas cargas de *stress* geradoras de situações de grande medo e/ou ansiedade que por sua vez podem tornar os indivíduos mais vulneráveis a problemas de Saúde Mental. Desde meados de março de 2020 foi decretado em Portugal estado de emergência devido à pandemia e consequentemente foram implementadas medidas para a proteção da saúde pública, nomeadamente o isolamento social e a obrigatoriedade de cumprir quarentena, que tiveram um impacto notório na Saúde Mental da população, nomeadamente nos grupos mais vulneráveis. Desta forma, numa tentativa de tentar perceber como a Saúde Mental pode desempenhar um papel fundamental na forma como o indivíduo vivência eventos adversos, e quais os fatores

que a podem influenciar, iniciou-se uma investigação materializada nesta tese de doutoramento com foco na intervenção a pessoas alvo de restrição social.

Desta forma, e tendo em conta a problemática descrita torna-se indispensável abordar alguns conceitos fundamentais. O primeiro conceito é a Saúde Mental Positiva alvo de grande interesse nos últimos anos, inicialmente abordado por Marie Jahoda em 1958, e que ressalta a forma como a Saúde Mental pode ser influenciada pelas dimensões positivas das experiências. A Saúde Mental Positiva pode ser definida como um valor em si (sentir-se bem) ou como a capacidade de perceber, compreender e interpretar o contexto e adaptar-se a ele, se necessário, com o objetivo de promover a autonomia, integração e adaptação (Lluch-Canut & Sequeira, 2020). Desta forma, os conceitos da Saúde Mental Positiva têm tido uma valorização crescente na investigação em saúde. Numa perspetiva salutogénica, as variáveis promotoras de Saúde Mental assumem uma importância acrescida, na qual se entende a Saúde Mental como indicador de integração e adaptação (Sequeira, 2006).

Para Lluch (M. Lluch, 2008), o conceito de Saúde Mental Positiva surge como parte integrante da saúde global da pessoa. A terminologia positiva pretende considerar a promoção de ações no sentido de reforçar e potenciar a Saúde Mental na sua generalidade. Na perspetiva positiva da Saúde Mental, o modelo predominante é o duo continuum formulado inicialmente por Keyes (Keyes, 2002) segundo o qual introduz uma operacionalização da Saúde Mental Positiva considerada independente da doença mental embora interrelacionada. O Modelo Multifactorial de Saúde Mental Positiva (MMSMP) de Lluck (M. Lluch, 2008; M. T. Lluch, 1999; Teixeira, Sequeira, & Lluch Canut, 2021) que foi considerado neste trabalho vai de encontro a esta linha de pensamento, pois formula a Saúde Mental Positiva como um construto que se define mediante seis fatores interrelacionado (Figura 1): Fator 1: Satisfação Pessoal (autoconceito/autoestima; satisfação com a vida pessoal; perspetiva otimista de futuro); Fator 2: Atitude Pró Social (predisposição ativa para a sociedade; atitude social altruísta/atitude de ajuda-apoio para com os outros; aceitação dos outros e dos factos sociais diferentes); Fator 3: Autocontrolo (capacidade para enfrentar o stresse/situações conflituosas; equilíbrio emocional/controlo emocional; tolerância à frustração, ansiedade e stresse); Fator 4: Autonomia (capacidade para ter critérios próprios; independência; autorregulação da própria conduta; segurança pessoal/confiança em si

mesmo); Fator 5: Resolução de problemas e Realização Pessoal (capacidade de análise; habilidade para tomar decisões; flexibilidade/capacidade para se adaptar às mudanças; atitude de crescimento e desenvolvimento pessoal contínuo) e Fator 6: Habilidades de Relação Interpessoal (habilidade para estabelecer relações interpessoais; empatia/capacidade para entender os sentimentos dos outros; habilidade para dar apoio emocional; habilidade para estabelecer e manter relações interpessoais íntimas). Este modelo serviu como base de construção do instrumento de avaliação de Saúde Mental Positiva de Teresa Lluck (Lluch Canut, 2003; M. T. Lluch, 1999) traduzido para a versão portuguesa por Sequeira e Carvalho (Sequeira & Carvalho, 2009; Sequeira et al., 2014).

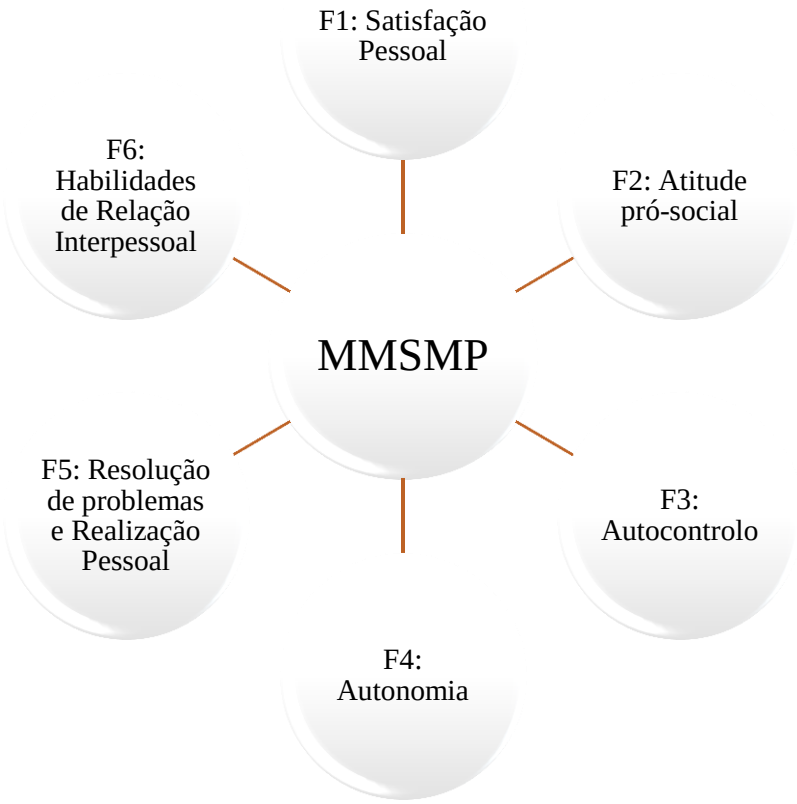

Figura 1 – Adaptado do Modelo Multifatorial de Saúde Mental Positiva de Lluch-Canut (Lluch-Canut, 1999; Lluch-Canut et al., 2013)

A pandemia veio reforçar a ideia de que a saúde mental é tão ou mais importante que a saúde física e que elas estão fortemente interligadas. Pesa embora a restrição social se tenha revelado um mecanismo preventivo fundamental, tendo sido amplamente incentivado pelas autoridades de saúde, ela promove sentimentos de solidão, influenciando o início ou aumentando a vulnerabilidade principalmente daqueles que já têm transtornos psiquiátricos. Desta forma, surge a necessidade de fazer referência a outro conceito fundamental deste nosso estudo: a Vulnerabilidade Psicológica. Numa perspetiva salutogénica avaliar a vulnerabilidade contribui para identificar características e condições associadas a indivíduos mais suscetíveis e perceber em profundidade as variáveis e condições que promovem ou reduzem os sentimentos de vulnerabilidade dos indivíduos e dos grupos. Em última análise este conhecimento permite aos profissionais de saúde identificar indivíduos vulneráveis e agir precocemente (Nichiata, Bertolozzi, Takahashi, & Fracolli, 2008), o que se revela fundamental em tempos de crise.

A vulnerabilidade psicológica pode ser considerada uma desvantagem que torna as pessoas menos protegidas para enfrentar experiências de vida negativas. A Escala de Vulnerabilidade Psicológica (PVS), utilizada neste trabalho, foi traduzida por Nogueira, Barros & Sequeira e originalmente foi concebida para identificar indivíduos vulneráveis em populações adultas cronicamente doentes (Nogueira, Barros, & Sequeira, 2017).

Um outro conceito não menos importante neste trabalho é o conceito de Literacia em saúde mental, definido como um conjunto de conhecimentos e habilidades que beneficiam a saúde mental. Assim, a componente positiva da literacia em saúde metal é considerada uma componente da saúde mental que ajuda a compreender melhor os mecanismos que melhoram a saúde mental e promovem comportamentos saudáveis (Carvalho et al., 2022).

Desta forma, estudos realizados ao longo dos tempos e em diferentes contextos (estudantes, idosos institucionalizados, doentes do foro psiquiátrico, jovens adultos) indicam que comportamentos saudáveis como uma boa alimentação, prática frequente de exercício físico e uma boa higiene do sono são fatores com impacto positivo na saúde (Antunes et al., 2021; Ghrouz et al., 2019; Lok, Lok, & Canbaz, 2017; Tordeurs, Janne, Appart, Zdanowicz, & Reynaert, 2011; Zhang, Zhang, Ma, & Di, 2020). De igual forma, existem estudos que evidenciam que, ter um bom nível de Saúde Mental Positiva

é um fator protetor e preventivo de diversos transtornos mentais entre os quais se destacam a depressão major, ataques de pânico e transtornos de ansiedade (Keyes, Dhingra, & Simoes, 2010). Desta forma, a necessidade de cuidar da Saúde Mental Positiva, como fator protetor da Saúde Mental, quer na população em geral (Buitrago Ramírez, Ciurana Misol, Fernández Alonso, & Tizón García, 2020; Keyes, 2007; Keyes et al., 2010; Keyes & Simoes, 2012; Moreno et al., 2020; Paulino et al., 2021; Teismann, Brailovskaia, & Margraf, 2019), quer, de forma especial, em profissionais de saúde (Sampaio, Sequeira, & Teixeira, 2021) consolida-se como fator preditivo e/ou mediador de respostas adaptativas para gerir tanto a situação gerada pela pandemia como potenciais problemas de Saúde Mental como o suicídio ou problemas de adição (Brailovskaia, Margraf, & Köllner, 2019; Teismann et al., 2019).

Desta forma, e considerando as consequências que o isolamento social/ períodos de quarentena podem ter na ansiedade e no *stress* dos indivíduos torna-se importante avaliar os níveis de Saúde Mental Positiva, de Literacia e a Vulnerabilidade dos mesmos para se poderem desenvolver intervenções específicas capazes de manter ou mesmo aumentar a sua Saúde Mental.

Face ao exposto, foi elaborada esta tese que se encontra inserida no Programa de Doutoramento em Ciências de Enfermagem e Saúde da Universidade de Rovira i Virgili. Foi lavrada em formato de compêndio de artigos, sendo constituída por um total de 3 artigos, dos quais 2 já estão publicados e 1 ainda em fase de *peer review* em revistas internacionais indexadas com arbitragem científica e classificadas no quartil 1 e 2.

A tese de doutoramento encontra-se estruturada em cinco capítulos, sendo que o primeiro diz respeito à metodologia geral dos estudos, o segundo capítulo contempla o primeiro artigo, o terceiro apresenta o segundo artigo, o quarto capítulo apresenta o terceiro artigo, o quinto capítulo revela a forma como foi divulgada a investigação e os respetivos resultados e o sexto capítulo as considerações finais. São ainda parte integrante desta tese as referências bibliográficas e os anexos que enobrecem o trabalho desenvolvido.

OBJETIVOS

Esta investigação teve como principal objetivo avaliar o impacto dos níveis de Saúde Mental Positiva em pessoas com restrição social fazendo o levantamento das necessidades ao nível da saúde mental de pessoas nestas circunstâncias em situações de crise, bem como contribuir para o desenvolvimento do conhecimento científico de enfermagem Desta forma e para atingir o objectivo geral foram traçados os seguintes objectivos específicos:

Avaliar os níveis de Saúde Mental Positiva de indivíduos em restrição social e verificar se existe relação entre a Vulnerabilidade Psicológica e a variável Sexo (estudo 1);

Avaliar o impacto da pandemia na Saúde Mental Positiva nos indivíduos com restrição social e relacionar a sua Literacia em Saúde Mental bem como avaliar os seus comportamentos salutogénicos (estudo 2);

Avaliar os níveis de Saúde Mental Positiva de indivíduos em restrição social comparando a variável Vulnerabilidade Psicológica com a Saúde Mental Positiva da mesma amostra em duas fases diferentes - durante e após a fase pandémica (estudo 3).

METODOLOGIA

No que diz respeito à metodologia utilizada, foram realizados três estudos dos quais resultaram 3 artigos científicos (Figura 2).

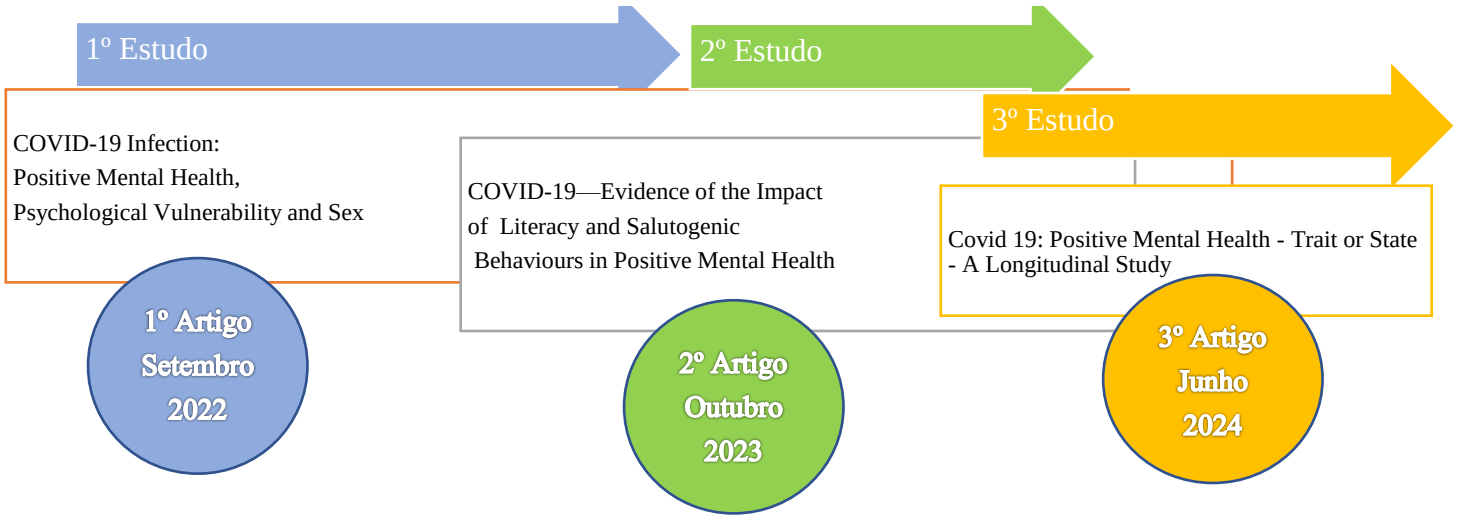

Figura 2 – Sequência dos estudos realizados

Os dois primeiros estudos realizados foram quantitativos, transversais, descritivos e correlacionais. A amostra foi constituída por 770 utentes selecionados por amostra de conveniência, suspeitos de infeção por COVID 19 rastreados nas unidades de testes da Unidade Local de Saúde do Nordeste (ULSNE) e que concordaram em participar de forma voluntária.

Os critérios de inclusão foram: idade igual ou superior a 18 anos; disponibilidade em participar e com consentimento informado e terem sido testados por suspeita de infeção por COVID 19. Como critérios de exclusão: não saber comunicar na língua portuguesa e não ter acesso a meios informáticos com internet para responder aos instrumentos de avaliação.

Numa primeira fase foi enviado a cada utente um consentimento livre e informado para participação no estudo (Anexo I). Posteriormente enviado um questionário de caracterização sociodemográfica (Anexo II), o Questionário de Saúde Mental Positiva

(PMHQ) (Anexo III); a Escala de Vulnerabilidade Psicológica (PVS) (Anexo IV), o Questionário: O que é importante para uma boa Saúde Mental (Anexo V) e o Questionário de conhecimento de Saúde Mental (Anexo VI). Todos os instrumentos foram enviados via e-mail e preenchidos numa plataforma on-line entre outubro de 2020 e janeiro de 2021.

Com estes dois primeiros estudos pretendeu-se analisar os níveis de Saúde Mental Positiva e Literacia em Saúde Mental e verificar se havia relação entre a Vulnerabilidade Psicológica e a variável sexo.

No primeiro estudo foi realizada estatística descritiva para descrever as características sociodemográficas da amostra e calculados valores médios do Questionário de Saúde Mental Positiva estratificados por sexo.

Foi realizado o cálculo da Correlação de *Pearson* entre o somatório da Vulnerabilidade e o somatório da Saúde Mental Positiva e os diferentes fatores. O Teste T para amostras independentes (*Independent Samples Test*) foi utilizado para comparar as variáveis Saúde Mental Positiva e Vulnerabilidade Psicológica com a questão do sexo, sendo que valores de *p* inferiores a 0,05 foram considerados estatisticamente significativos.
Relativamente ao segundo estudo, procedeu-se à análise descritiva da amostra através de tabelas de medidas de tendência central. Relativamente aos instrumentos utilizados todos foram submetidos a uma análise de fiabilidade interna através do *Alpha de Cronbach*.

Para verificar a existência de diferenças estatisticamente significativas nas dimensões da Saúde Mental Positiva e da avaliação dos conhecimentos em Saúde Mental perspetivou-se a utilização de testes t de *student* para duas amostras independentes, sendo que valores de *p* inferiores a 0,05 foram considerados estatisticamente significativos.

No âmbito do estudo internacional que decorreu entre o dia 30 de janeiro e o dia 30 de abril de 2023 (Anexo VII), orientado pelo Professor Doutor André Filipe Morais Pinto Novo, foi realizado o terceiro estudo que corresponde a um estudo quantitativo, longitudinal, descritivo e correlacional. Os indivíduos que participaram foram avaliados em dois momentos distintos. A primeira avaliação decorreu entre os meses de outubro de 2020 e janeiro de 2021 (em plena pandemia) e a segunda avaliação entre janeiro e março de 2023 (altura coincidente com o final de todas as restrições impostas pela

pandemia). Os critérios de inclusão foram: idade igual ou superior a 18 anos; disponibilidade em participar e com consentimento informado, terem sido testados por suspeita de infeção por COVID 19 e participado no primeiro estudo realizado. Neste estudo foram utilizados os seguintes instrumentos de avaliação: questionário sociodemográfico e questões relacionadas com a fase pandémica, o Questionário de Saúde Mental Positiva e a Escala de Vulnerabilidade Psicológica.

Desta forma, através deste estudo longitudinal pretendeu-se verificar até que ponto a Saúde Mental Positiva pode ser, ou não, encarada como fator protetor da vulnerabilidade mental e das adversidades. Para isso, foi realizada estatística descritiva para relatar as características sociodemográficas da amostra e realizado o cálculo da Correlação de *Pearson* entre o somatório da Vulnerabilidade e o somatório da Saúde Mental Positiva e os diferentes fatores e feita uma comparação entre os valores da primeira e da segunda avaliação utilizando o Teste T para amostras independentes (*Independent Samples Test*), sendo que valores de *p* inferiores a 0,05 foram considerados estatisticamente significativos.

Este artigo, ainda não está publicado. Foi submetido no Journal of Psychiatric Research (Fator de impacto 3,7; SJR.2023 1.55; Q1 Biological Psychiatry e Q1 Psychiatry and Mental Health) e encontra-se em fase de revisão por parte da revista.

Todos os dados foram analisados com recurso ao programa IBM SPSS v.22.

Relativamente às questões éticas, durante a realização deste trabalho foram sempre salvaguardados todos os aspetos inerentes a uma investigação. Desta forma, foi realizado o pedido de autorização à instituição de saúde envolvida cujo parecer e a aprovação da Comissão de Ética e respetivo Conselho de Administração foi dado a 16 de setembro de 2020 (Parecer nº24/2020) (Anexo VIII). Todos os participantes deram o seu consentimento informado eletronicamente antes da participação e preenchimento dos instrumentos de avaliação.

RESULTADOS

1º Artigo Publicado – COVID- 19 Infection: Positive Mental Health, Psychological Vulnerability and Sex: Cross - Sectional Study

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COVID-19 infection: Positive mental health, psychological vulnerability and sex: Cross-sectional study

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Abstract

Since mid-March 2020, a state of emergency was decreed in Portugal due to the COVID-19 pandemic and, consequently, measures were implemented to protect public health, such as social isolation, which will certainly have a notable impact on the mental health of the population, especially in the most vulnerable groups. Positive Mental Health (PMH) is essential to deal with adversity, in this case with the pandemic, and to live better and with greater satisfaction. We consider it relevant to investigate how PMH was used as a resource to deal with the pandemic, depending on the level of vulnerability and sex. A, cross-sectional study was carried out whose the aim was to evaluate the levels of PMH and psychological vulnerability in people with COVOD-19 infection and analyze the association between PMH and psychological vulnerability among men and women.

Methods: The instruments used were a sociodemographic characterization questionnaire, the Positive Mental Health Questionnaire, and the Psychological Vulnerability Scale (PVS), that were sent and filled out online. A quantitative, cross-sectional, descriptive, and correlational study was carried out.

Results: After analyzing the results, it was found that approximately 50.4% of the respondents ($n = 387$) had global PMH values that place them in quartile 50. There was also a statistically significant difference between female and male PMH, with women showing greater psychological vulnerability and lower overall PMH.

Conclusions: We conclude that the women present a greater psychological vulnerability and a lower level of PMH when compared to men.

Relevance to clinical practice: Considering the study's statistically significant results, when we talk about mental health, we should always consider the sex variable as a vulnerability factor, in a pandemic or non-pandemic phase.

KEYWORDS
pandemic, positive mental health, psychological vulnerability, sex

INTRODUCTION

In recent years, there has been a growing interest in the concept of Positive Mental Health (PMH), highlighting the way in which mental health can be influenced by the positive dimensions of experiences. Thus, PMH can be defined as a value in itself or as the ability to perceive, understand and interpret the context, adapting to it whenever necessary, in order to promote autonomy, integration, and adaptation (Sequeira & Sampaio, 2020).

The concept of PMH is used to describe more than the absence of disease, it is a terminology directed and specifically dedicated to the promotion of mental health in a perspective of strengthening and developing the optimal functioning of human beings, reinforcing and enhancing mental health in general (Lluch, 2008; Teixeira et al., 2021).

One of the most relevant conceptual approaches is the Multifactorial Model of Positive Mental Health (MMPMH) by Lluch Canut et al. (1999), which addresses PMH as a construct with six dimensions or factors: Factor 1: Personal satisfaction (self-concept / self-esteem; satisfaction with personal life; optimistic perspective of the future); Factor 2: pro social attitude; active predisposition for the social / for society; altruistic social attitude/help-support attitude towards others; acceptance of others and different social factors); Factor 3: self-control (ability to face stressful/conflict situations; emotional balance/emotional control; tolerance to frustration, anxiety and stress); Factor 4: autonomy (ability to have its own criteria; independence; self-regulation of one's own conduct; personal safety / self-confidence); Factor 5: problem solving and personal fulfillment (ability to analyze; ability to make decisions; flexibility / ability to adapt to change; attitude of continuous growth and continuous personal development) and Factor 6: interpersonal relationship skills (ability to establish interpersonal relationships; empathy / ability to understand the feelings of others; ability to provide emotional support; ability to establish and maintain intimate interpersonal relationships).

Lluch Canut et al.'s (1999) MMPMH is assessed using a questionnaire (Positive Mental Health Questionnaire) by the same author which is described in more detail in the methodology section of this article. Both the conceptual model and the PMH questionnaire were applied to different populations and in different health conditions: people with schizophrenia (Ruiz & Dolores, 2014), people with chronic physical health problems (Lluch-Canut et al., 2013; Puig Llobet et al., 2020), caregivers of family members with schizophrenia (Pinho et al., 2021; Riobóo, 2015), pre-hospital emergency medical services professionals (Mantas Jiménez et al., 2015), university students (Roldán-Merino et al., 2017), and university teachers (Hurtado-Pardos et al., 2017). In addition, the questionnaire was also translated into Portuguese (Sequeira et al., 2014) and in Turkey (Teke & Arabacı, 2018).

This is the first study that we are aware of, which is carried out in people affected by COVID, using the MMPMH model by Lluch Canut et al. (1999).

In late December 2019, the first cases of atypical pneumonia of unknown origin were reported in Wuhan – China with suspicion of possible zoonosis. In January 2020, Chinese authorities identified the infectious agent as a new coronavirus, naming it SARS-COV 2 – COVID-19. On January 30, 2020 the World Health Organization declared the outbreak of COVID-19 a health emergency international public calling on all countries to take rapid action to combat the virus (World Health Organization, 2020). In Portugal, a study carried out by the National Institute of Health Doctor Ricardo Jorge (Mental Health in times of pandemic), which aimed to assess the impact of COVID-19 on the mental health and well-being of the population in general, revealed that it is mainly the women who present, more often, symptoms of psychological distress, anxiety and depression (Almeida et al., 2020).

It appears that currently the majority of the population faces daily high loads of stress that generate situations of great fear and/or anxiety, which in turn can make individuals more vulnerable to mental health problems. Anxiety disorders are among the most frequent psychiatric disorders in the general population. According to Apóstolo et al. (2011), of the 870 million people who live in Europe, it is estimated that approximately 100 million suffer from anxiety and depression. Extensive research in studies conducted all over the world reveals that the female sex is the most vulnerable to mental health problems during the pandemic or even worsening of previously diagnosed mental health problems. Thus, pandemic events affect the general population, but many stressors affect especially women, identifying sex as a vulnerability factor (Almeida et al., 2020; Broche-Pérez et al., 2020; Connor et al., 2020; Liu et al., 2020; Özdin & Bayrak Özdin, 2020; Qiu et al., 2020).

The aim of this study was to evaluate the PMH of individuals from the district of Bragança – Portugal, who were tested for suspected infection by COVID-19 and to relate the issue of psychological vulnerability with the sex variable.

It should also be noted that the district of Bragança is located in the Northeast region of Portugal, belongs to the traditional province of Trás-os-Montes and Alto Douro. It is limited to the north and east by Spain, to the south by the districts of Guarda and Viseu, and to the west by the district of Vila Real. The District has a total area of 6608 km^2 and is the fifth largest Portuguese district, inhabited by 33,597 inhabitants corresponding to 63.5% of the working - age population (between 15 and 65 years old) and 25.1% of the elderly population (65 years old or even older) (Fundação Francisco Manuel dos Santos, 2011).

METHODS

A quantitative, cross-sectional, descriptive, and correlational study was carried out. The sample consisted of 770 users selected by a convenience sample, who agreed to participate voluntarily, suspected of infection by COVID-19, screened in the testing units created specifically for COVID-19 testing belonging to the Macedo de Cavaleiros health center that is part of the Northeast Local Health

Unit. All those who were in contact with positive cases were tested. Only participants with positive test result or with a high-risk were in isolation or quarantine.

Inclusion criteria were: age 18 years or older; availability to participate and with informed consent and having been tested for suspected infection by COVID-19. As exclusion criteria: not knowing how to communicate in Portuguese and not having access to computer resources with internet to respond to the assessment instruments.

In a first phase, each user was sent a free and informed consent to participate in the study. Subsequently, a sociodemographic questionnaire, the Positive Mental Health Questionnaire (Sequeira & Carvalho, 2009) and the PVS (Nogueira et al., 2017) were sent. All instruments were sent by email and completed on an online platform between October 2020 and January 2021.

Assessment instruments

The Positive Mental Health Questionnaire that was applied is based on the multifactorial model developed by Teresa Lluch (Lluch, 2008; Lluch Canut et al., 1999). This model is based on the evaluation of 6 factors that served as the basis for the construction of Teresa Lluch's PMH assessment instrument (Lluch Canut, 2003; Lluch Canut et al., 1999) translated into the Portuguese version by Sequeira and Carvalho (Sequeira & Carvalho, 2009; Sequeira et al., 2014). The questionnaire consists of 39 items evaluated on an ordinal scale, with a maximum score of 156 points and a minimum of 39 points, unevenly distributed among the 6 factors: F1: Personal Satisfaction (8 items); F2: Pro-social attitude (5 items); F3: Self-control (5 items); F4: Autonomy (5 items); F5: Problem Solving and Personal Fulfillment (9 items) and F6: Interpersonal Relationship Skills (7 items).

Items take the form of positive or negative statements that are answered on a scale of 1 to 4, according to how often they occur: always or almost always, quite often, sometimes, never or rarely. The questionnaire gives an overall score for PMH (sum of item scores) as well as specific scores for each factor. Thus, the higher the value obtained in this assessment instrument, the higher the PMH level.

The original questionnaire was validated in a population of students and in the general population, producing an internal consistency (Cronbach's alpha) between 0.89 and 0.90 and a test–retest correlation of 0.85. From the principal component analysis, six factors were derived that explained 46% of the total variance. All your items have a factor loading above 0.40. On this study, with this sample, Cronbach's alpha value is 0.88, thus presenting a very good internal consistency.

The PVS translated into the Portuguese version by Nogueira et al. (2017) consists of 6 self-completion statements rated on a Likert scale with five response possibilities ranging from 1 «does not describe me anything» to 5 «describe me very well». The total score is the sum of all items. The higher the score, the greater the psychological vulnerability. The Portuguese version has a good internal consistency (Cronbach's alpha 0.73) and a test–retest correlation of 0.88, $p < 0.0001$ at 5 weeks. On this study, with this sample, Cronbach's alpha value is 0.84, thus presenting a very good internal consistency.

Statistical analysis

All data were analyzed using the IMB SPSS v.22 program. Descriptive statistics were performed to describe the sociodemographic characteristics of the sample, and mean values stratified by sex were calculated from the Positive Mental Health Questionnaire.

Pearson's correlation was calculated between the total score of psychological vulnerability and the total score of Positive Mental Health (TPMH) and the different factors. The *T* Test for independent samples (Independent Samples Test) was used to compare the PMH and psychological vulnerability variables with the question of sex, with *p* values lower than 0.05 being considered statistically significant.

RESULTS

The sample was composed of 770 individuals suspected of infection by COVID-19, mostly females (64.3%; $n = 495$); the average age was 36.3 years (minimum of 18 and maximum of 74 years of age and SD of 12.3 years); married or cohabiting (48.8%; $n = 376$); without children (46.6%; $n = 359$); 40.5% ($n = 312$) had concluded secondary education, 39% ($n = 300$) had graduated from university, and most of them were working (64%; $n = 493$). Most of the respondents had completed isolation/quarantine ($n = 533$, corresponding to 69.2% of the sample) (Table 1).

As for the overall PMH, and to better interpret the results, we divided total PMH values obtained into quartiles: 25, 50, and 75. Consequently, TPMH values up to 123 correspond to the 25th percentile, TPMH values from 124 to 144 correspond to the 50th percentile, and TPMH values above 145 correspond to the 75th percentile. The overall PMH of the sample is in quartile 50, with a total mean value of 132.06, corresponding to a good level of PMH ($n = 387$).

Concerning the inferential analysis of PMH for sex, a statistically significant value was found in all PMH factors, except for factor 6 - Interpersonal relationship skills and factor 2 - Pro-social attitude - statistically non-significant value (Table 2). Thus, and comparatively, women present lower values than men in the dimensions Personal Satisfaction (F1), Self-control (F3), Autonomy (F4), and Problem-solving (F5), with *p* values lower than 0.05 and, therefore, statistically significant.

After analyzing the results, we infer that the women scores for PVS are higher (M = 15.72; SD = 5.7) than men (M = 13.66; SD = 5.07), which indicates a greater psychological vulnerability in the female participants and a lower TPMH values (130.39) when compared to men (135.07) (Table 2).

There was also a strong negative correlation between PMH, overall and factor-based, and psychological vulnerability (through the calculation of Pearson's Correlation between the TPMH and the PVS). Therefore, we concluded that these variables are inversely proportional (Table 3), i.e., the higher the PMH, the lower the psychological vulnerability, and vice versa.

TABLE 1 Demographics of the sample (n = 770)

Variable		N	%
Sex	Feminine	495	64.3
	Masculine	275	35.7
Marital status	Single	339	44
	Married	376	48.8
	Divorced	51	6.6
	Widow(er)	4	0.5
Children	0	359	46.6
	1	189	24.5
	2	186	24.2
	3 or more	36	4.7
Education	Primary Education First Cycle	13	1.7
	Primary Education second/third Cycle	37	4.8
	Secondary Education	312	40.5
	Bachelor's degree	20	2.6
	Licentiate	300	39
	Master	80	10.4
	Doctorate degree	8	1
Employment situation	Employed	493	64
	Employer/ entrepreneur	70	9.1
	Unemployed	41	5.3
	Retired	7	0.9
	Student	154	20
Quarantine/confinement	Yes	533	69.2
	No	237	30.8
Total		770	100

DISCUSSION

As in previous pandemics, the COVID-19 has greatly impacted the population's health, namely mental health. The pandemic can be considered a traumatic event, generating severe consequences on the population's mental health (Shigemura et al., 2020).

Some of our results are similar to those found in other studies conducted during the COVID-19 pandemic concerning the PMH dimensions of Personal Satisfaction and Self-control. For example, a study conducted in 2021 in Poland with a sample of mostly female individuals (75.24%) revealed a significant average decrease in happiness and life satisfaction during the COVID-19 pandemic compared to the pre-pandemic period (Gawrych et al., 2021).

Regarding the self-control dimension, several studies have concluded that self-control is a resilience factor between the perceived severity of the COVID-19 infection and mental health, with the most vulnerable population having the least self-control (Li et al., 2020; Schnell & Krampe, 2020). Thus, we can infer that mental health problems are attenuated when these dimensions of PMH increase.

Recent reports indicate that in situations of infection by COVID-19, women are at a lower risk of serious illness and death than men (Gebhard et al., 2020; Richardson et al., 2020). However, we also found that recent studies carried out all over the world suggest that the symptomatology of post-traumatic stress disorders, the levels of anxiety and depression, and in general, the impact of the COVID-19 pandemic on mental health is more evident, and with statistically significant results, in women (Almeida et al., 2020; Liu et al., 2020; Özdin & Bayrak Özdin, 2020), which corroborates this research.

On the other hand, we found studies carried out in contexts unrelated to the pandemic that also indicate that there were already significant differences in PMH between men and women. A study conducted in Mexico with young university students revealed that men show better cognitive-emotional well-being, control of the environment, and physical well-being. In contrast, women show better social skills, empathy, and social sensitivity, but on the other hand, greater psychological distress (Barrera Guzmán & Flores Galaz, 2020) (Barrera & Flores, 2020).

Another study conducted in Mexico on higher education students aged 14 to 20, aiming to analyze the differences between the PMH of men compared to women, revealed somewhat different

TABLE 2 Correlational analysis of TPMH, sex and psychological vulnerability (n = 770)

SEX		PVS	F1	F2	F3	F4	F5	F6	TPMH
Feminine	Mean	15.72	25.81	18.30	15.36	15.70	31.41	23.81	130.39
	SD	5.71	4.71	1.81	3.02	3.34	3.76	3.35	16.10
Masculine	Mean	13.66	27.82	18.05	16.68	16.72	31.97	23.84	135.07
	SD	5.07	3.73	1.85	2.55	2.51	3.45	3.21	13.84
	p	<0.000	<0.000	0.069	<0.000	<0.000	0.039	0.903	<0.000
Total	Mean	14.98	26.53	18.21	15.83	16.06	31.61	23.82	132.06
	SD	5.57	4.49	1.83	2.93	3.11	3.66	3.30	15.49

TABLE 3 Pearson's correlation between the TPMH and the PVS ($n = 770$)

		PVS	F1	F2	F3	F4	F5	F6
	r							
	p							
F1	*r*	−0.551**						
	p	<0.000						
F2	*r*	−0.132**	0.333**					
	p	<0.000	<0.000					
F3	*r*	−0.499**	0.642**	0.319**				
	p	<0.000	<0.000	<0.000				
F4	*r*	−0.502**	0.691**	0.312**	0.594**			
	p	<0.000	<0.000	<0.000	<0.000			
F5	*r*	−0.436**	0.638**	0.421**	0.675**	0.619**		
	p	<0.000	<0.000	<0.000	<0.000	<0.000		
F6	*r*	−0.304**	0.565**	0.537**	0.512**	0.531**	0.633**	
	p	<0.000	<0.000	<0.000	<0.000	<0.000	<0.000	
TPMH	*r*	−0.538**	0.860**	0.551**	0.801**	0.810**	0.858**	0.793**
	p	<0.000	<0.000	<0.000	<0,000	<0.000	<0.000	<0,000

Abbreviations: F1, Personal Satisfaction; F2, Pro-social Attitude; F3, Self-control; F4, Autonomy; F5, Problem Solving and Personal Fulfillment; F6, Interpersonal Relationship Skills; PVS, psychological vulnerability scale; TMPH, total score of positive mental health.

** Correlation is significant at the 0.01 level.

results. The results showed that 38.3% of the sample has a high level and 16.1% at a very high level of PMH. There were significant differences in four of the six dimensions: Personal Satisfaction, Pro-social Attitude, and Interpersonal Relationship skills, with higher scores for women and self-control in men (Toribio Pérez et al., 2018).

However, it should be noted that all these studies were conducted with different instruments, populations, and contexts.

In Spain, another research (Lluch-Canut et al., 2013) conducted with chronically ill adults over 45 years of age reports significant differences between men and women. Women show more pro-social attitudes and interpersonal relationship skills, and men more personal satisfaction and autonomy. Thus, considering that we used the same evaluation instrument, i.e., the Positive Mental Health Questionnaire by Lluch Canut et al. (1999), we can explain these differences in our study by the differences in contexts and between age groups.

As far as the mental health impact is concerned, in general, the results of the scientific evidence are unanimous. In line with our findings, several studies show evidence of a negative impact on the mental health of the population during events such as the one currently being experienced. A study conducted in China during the initial phase of the COVID-19 outbreak found that more than half of the stakeholders rated the psychological impact of the pandemic as moderate to severe and that the female sex was associated with a greater psychological impact of the outbreak and higher levels of stress, anxiety and depression (C. Wang, Pan, et al., 2020).

In Australia, another study conducted four weeks after the pandemic shutdown came to two similar conclusions: that the COVID-19 appears to have a major impact on mental health and that young adults (<35 years), women, unemployed, and those on low incomes have significantly lower mental health (Pieh et al., 2020). It should also be noted that relatively high rates of symptoms of psychiatric disorders were reported in the general population during the COVID-19 pandemic in China, Spain, Italy, Iran, the United States, Turkey, Nepal and Denmark (Xiong et al., 2020). Thus, in the light of the psychosocial implications of the COVID-19 in the general population and specific groups, the promotion and primary prevention of mental health acquires great relevance. It is paramount to enhance the mental health of those who are well and to detect the risk of any potential mental health problem as early as possible.

In this sense, and taking into account the scientific evidence, there are several studies that show the importance of the need to take care of the PMH considering it as a protective factor of mental health, both in the general population (Buitrago Ramírez et al., 2020; Keyes, 2007; Keyes et al., 2010; Keyes & Simoes, 2012; Moreno et al., 2020; Murray et al., 2020; Paulino et al., 2021; Teismann et al., 2019; Tizón, 2020), and especially in health professionals (Alonso et al., 2021; Dosil Santamaría et al., 2021; Romero et al., 2020; Sampaio et al., 2021).

In addition to being a protective factor, PMH should also be considered as a predictive factor and/or mediator of adaptive/dysadaptive coping responses, both in the specificity of the pandemic and in the potential for mental health, suicide or addiction problems (Brailovskaia et al., 2019; Murray et al., 2020; Teismann et al., 2019).

Thus, taking into account the situation that is being experienced all over the world, and given that sex vulnerability issues are

somewhat transversal to various themes and not only to health in general, there is an urgent need for further research to substantiate the need to implement measures and strategies that minimize the impact of the pandemic on mental health, particularly in the most vulnerable groups, to ensure that public health policies take into account the sex perspective. However, the results that relate PMH with sex remain controversial since, in some studies, the differences are statistically significant, while in others, the differences are not significant regardless of the study context.

In this way, it was verified that the study carried out was in line with several previous studies reporting on women as most vulnerable (Broche-Pérez et al., 2020; Connor et al., 2020; Qiu et al., 2020).

Learned lessons and policy recommendations following the COVID-19 pandemic

The pandemic caused by the COVID-19 virus has shown that in no part of the world the government institutions, hospitals or even properly trained human resources were prepared to easily overcome this great challenge (Han et al., 2020; Scotti et al., 2022; Wang, Duan, et al., 2020). The impact of this pandemic was not only noticeable on the world economy, but also reinforced the constant need for better preparation in the area of health, namely in its response capacity and in the training of health professionals and society itself to better deal with a similar event in the future. Health policies should include specific plans for more effective action with the provision of qualified professionals in sufficient numbers to avoid exhaustion (Rossi et al., 2022) More and more investment should be made in specific training that contemplates demands and contingency plans standardized by health organizations, so that there is a better preparation and response to emerging infectious diseases (Wu et al., 2020).

LIMITATIONS

The authors did not perform a sample size calculation. The study was conducted in an area in the northeast of Portugal, where the population is aged and not everyone has computer or internet resources. Our sample size was a result of those who were able to fill out the instruments online. We consider this a limitation because the population tested was much larger than our sample size.

The questionnaires were filled out on line and although the participants were instructed to fill out the questionnaire only once, due to anonymity this cannot be guaranteed.

CONCLUSIONS

The results of this study corroborate international research indicating that women are the sex with the highest rates of psychological vulnerability during the COVID-19 pandemic and have a greater negative impact on their PMH.

Psychological vulnerability is a good indicator of lower PMH, so it can be used in association with sex to identify the persons who should be given priority in terms of intervention. Consequently, it is paramount to recognize the need to implement health policies that contemplate specific interventions that minimize the negative psychological impact on the mental health of the most vulnerable groups, namely women, not neglecting the post-pandemic period.

CLINICAL RESOURCES

Mental health & COVID-19: Coronavirus disease (Source: World Health Organization). https://www.who.int/teams/mental-health-and-substance-use/mental-health-and-covid-19

Mental health and psychosocial considerations during the COVID-19 outbreak (Source: World Health Organization) https://www.who.int/publications/i/item/WHO-2019-nCoV-MentalHealth-2020.1

One in 5 COVID-19 patients develop mental illness within 90 days –study (Source: Reuters) https://www.reuters.com/article/health-coronavirus-mental-illness-idUKL8N2HS4ND

Coronavirus disease (COVID-19) (Source: American Nurses Association) https://www.nursingworld.org/practice-policy/work-environment/health-safety/diseae-preparedness/coronavirus/

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CONFLICT OF INTERESTS

All co-authors have contributed significantly and agree with the contents of the manuscript and there is no financial interest to report.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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2º Artigo Publicado – COVID-19 – Evidence of the Impact of Literacy and Salutogenic Behaviours in Positive Mental Health: A Cross – Sectional Study

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Article

COVID-19—Evidence of the Impact of Literacy and Salutogenic Behaviours in Positive Mental Health: A Cross-Sectional Study

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Abstract: Positive mental health is defined as the ability to perceive and interpret the context of a situation and to adapt to it whenever necessary. Considering the pandemic situation, identifying the factors that may have the greatest impact on quality of life and consequently, on positive mental health is paramount. The objective of this study was to assess the impact of health literacy on the adoption of behaviours that promote positive mental health during COVID-19. A descriptive, cross-sectional and correlational study was conducted on a sample of 770 patients using a questionnaire for sociodemographic characterization, the Positive Mental Health Questionnaire and the Mental Health Knowledge Questionnaire. Concerning health-promoting behaviours, those who sleep enough hours, exercise regularly, eat healthy and are more aware of mental health promotion activities, or have greater mental health literacy, have higher positive mental health scores. Thus, having more knowledge of mental health and adopting health-promoting behaviours improve positive mental health.

Keywords: mental health; literacy; COVID-19

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1. Introduction

In late December 2019, the first cases of atypical pneumonia of unknown origin were reported in China. In January 2020, Chinese authorities identified the infectious agent, naming it SARS-CoV-2, and the World Health Organization (WHO) declared the COVID-19 outbreak an international public health emergency [1]. On 18 March 2020, a state of emergency was declared in Portugal and consequently, several measures were implemented to protect public health.

Considering all the scientific evidence and the consequences that social isolation/quarantine periods may have on anxiety and stress, the WHO (2020) issued a statement aimed at minimizing these effects. The statement highlights the importance of exercising regularly, eating healthy and having sleep routines. Besides these factors, literacy was also pointed out as a key role player concerning the resources needed to minimize the impact of any circumstance, whether in a pandemic or a normal time, on an individual's MH [2].

Several studies conducted over the past decade on different populations (students, institutionalized elderly people, psychiatric patients, young adults) indicate that factors such as healthy behaviours or health-promoting behaviours such as a good diet, frequent physical exercise, and good sleep hygiene have a positive impact on MH [3–7]. Similarly, other studies show that having a good level of positive mental health (PMH) is a protective and preventive factor against several mental disorders, including major depression, panic attacks and anxiety disorders [8]. Therefore, the need to foster PMH as a protective element

of MH, both in the general population and among patients [8–13], has established itself as a predictor and/or mediator of adaptive reactions for managing situations generated by the pandemic and potential problems of MH such as suicide or addiction [13,14].

From a positive perspective of MH, the predominant model is the Dual-Continuous Model initially formulated by Keyes (2002) [15]. This model introduces an operationalization of PMH which is considered independently from mental illness, although they are interrelated. Lluch's Multifactorial Model of Positive Mental Health [16] goes against this line of thought when formulating PMH as a construct that is defined by six interrelated factors: Factor 1: personal satisfaction (items 4, 6, 7, 12, 14, 31, 8 and 39); Factor 2: pro-social attitude (1, 3, 23, 25 and 37); Factor 3: self-control (2, 5, 21, 22 and 26); Factor 4: autonomy (10, 13, 19, 33 and 34); Factor 5: problem solving/self-maintenance (15, 16, 17, 27, 28, 29, 32, 35 and 36) and Factor 6: interpersonal relational skills (8, 9, 11, 18, 20, 24 and 30).

Lluch's Multifactorial Model of PMH (1999) is assessed using a standardized instrument which will be described in the methodology. This model allows for a salutogenic assessment of mental health and enables health professionals to be health-promoting agents by implementing interventions capable of promoting satisfaction, a pro-social attitude, self-control, autonomy, problem-solving skills and interpersonal relationships.

As far as mental disorders are concerned, they carry a great deal of weight when it comes to health in Europe, and their impact on quality of life is greater than chronic diseases, such as diabetes, and cardiovascular and respiratory diseases. Therefore, it is paramount not only to take care of MH problems and try to reduce their incidence, but also to provide the necessary resources to improve the MH of individuals who do not have MH problems [17]. We believe that developing specific intervention programmes to address MH problems requires a broad knowledge of how people react when faced with different situations and the factors that may be interrelated with such reactions.

In this regard, this study was proposed to identify which salutogenic behaviours can positively influence mental health and if mental health knowledge influences the positive mental health of individuals tested.

2. Materials and Methods

2.1. Design and Participants

This study was a descriptive, correlational and cross-sectional study. The opportunity sample was composed of 770 patients suspected of having a COVID-19 infection during the pandemic, who were screened at the testing units of a healthcare unit located in Northern Portugal and agreed to participate voluntarily. The data were collected during the lockdown phase of the pandemic and before vaccination.

2.2. Procedure

Inclusion criteria were individuals aged 18 or older who voluntarily signed an informed consent form and who had been tested for a suspected COVID-19 infection. Conversely, people who could not communicate in Portuguese or who did not have access to a computer with an internet connection to complete the assessment tools were not included in the study.

First, a form for free and informed consent to participate in the study was sent to each participant. After receiving the signed informed consent, the sociodemographic instrument, the Positive Mental Health Questionnaire (PMHQ) [18] and the Mental Health Knowledge Questionnaire (MHKQ) [19] were sent to the participants. Every instrument was delivered by email and completed on an online platform. The study took place from October 2020 to January 2021.

2.3. Assessment Instruments

The instruments used were a questionnaire for sociodemographic characterisation, the Positive Mental Health Questionnaire and the Mental Health Knowledge Questionnaire, all in an online format.

2.3.1. PMHQ

The multifactorial model created by Teresa Lluch served as the foundation for the PMHQ used in this study [16]. The basis of this model is the evaluation of 6 factors that underpinned the construction of Teresa Lluch's PMH assessment instrument translated and validated for the Portuguese population by Sequeira and Carvalho [18]. The questionnaire comprises 39 items assessed on an ordinal scale, with a maximum score of 156 and a minimum of 39 points, distributed unequally among the 6 factors: (1) personal satisfaction; (2) pro-social attitude; (3) self-control related to emotional balance; (4) autonomy referred to as the capacity of the person to make decisions; (5) problem solving and self-actualization and (6) interpersonal relationship skills associated with the ability to communicate with others and develop harmonious interpersonal relationships.

The questions come in the form of affirmative or negative statements, and the answers range from always or almost always, quite often, sometimes to never or rarely on a scale of 1 to 4. The questionnaire provides both individual scores for each element as well as an overall PMH score (total of item scores). The PMH level is therefore higher for higher values achieved using this assessment tool.

The original questionnaire was validated in a student population and the general population, yielding an internal consistency (Cronbach's alpha) between 0.89 and 0.90 and a test–retest correlation of 0.85.

2.3.2. MHKQ

The Mental Health Knowledge Questionnaire, translated and validated for the Portuguese population by Chaves, Sequeira, and Duarte [19], is divided into three parts. The first part has 16 statements that assess the knowledge of the characteristics of MH and mental disorders and beliefs in their epidemiology and are rated on a Likert-type scale in which 1 = "I totally disagree"; 2 = "I partially disagree"; 3 = "Neither agree nor disagree"; 4 = "I partially agree" and 5 = "I totally agree". The total scores range from 14 to 70, and higher scores indicate higher levels of literacy. The second part consists of 4 items (from 17 to 20) that evaluate the activities to promote MH and are scored with 1 or 0 points for answers of "yes" and "no", respectively. Finally, the third part has 10 items that assess what is important for good MH. Each item is rated on a 5-point Likert-type scale ranging from 1, "completely wrong", to 5, "completely correct", plus 0, "don't know". The global score ranges from 10 to 50 points and the interpretation of the results should be that the higher the score, the higher the levels of good MH. The instrument shows good psychometric adequacy attributes of both validity and reliability (Cronbach's alpha coefficients ranging from 0.57 to 0.73 and a 2-week test–retest reliability of 0.68) and the measure may be considered adapted and validated for the Portuguese context.

2.4. Statistical Analysis

A descriptive analysis of the sample was performed using frequency tables (in the case of qualitative variables) and the mean, maximum, minimum and standard deviation (in the case of quantitative variables). All dimensions under study were analysed for internal reliability using Cronbach's alpha and all scales and subscales were transformed into percentages to facilitate comparisons and interpretations.

The Student's *t*-test for two independent samples was used to detect the existence of statistically significant differences in the PMH, the MH literacy and the assessment of MH knowledge dimensions. The assumption of population normality was safeguarded under the central limit theorem. To study the interdependence between the different dimensions, a matrix with Pearson's correlation coefficients and respective statistical significance was replicated; a p value < 0.05 was considered statistically significant. No tests of normality/homoscedasticity were conducted and normality was assumed. The statistical analysis of this study was performed using IBM SPSS Statistics 24.0 (Chicago, IL, USA).

3. Results

The social and labour characteristics of the 770 respondents in the sample are presented in Table 1. Most of the respondents were women (n = 495), with an average age of 36.3 years old. As many as 312 (40.5%) of the respondents had completed secondary education, showing an intermediate level of schooling. Also, most of the respondents were employed (64.6%; n = 498) (Table 1).

Table 1. Social and labour characterization of the sample.

	N	%
Sex		
Female	495	64.3
Male	275	35.7
Marital Status		
Single	339	44.0
Married	376	48.8
Divorced	51	6.6
Widow(er)	4	0.5
Level of Education		
Primary Education 1st Cycle	13	1.7
Primary Education 2nd/3rd cycle	37	4.8
Secondary Education	312	40.5
Bachelor's Degree	20	2.6
Licentiate	300	39
Master's Degree	80	10.4
Doctorate Degree	8	1
Employment Situation		
Employed	498	64.6
Employer/Entrepreneur	70	9.1
Unemployed	41	5.3
Retired	7	0.9
Student	154	20
Hourly Rate		
Less than 35 h per Week	146	19
35 h per Week	255	33.1
40 h per Week	218	28.3
More than 40 h per Week	151	19.6

Age: mean 36.31 years (SD 12.32); min: 18; max: 74.

Similarly, most of the respondents (69.2%, n = 533) were (at the time of the questionnaire) or had been in quarantine or social isolation due to suspicion of COVID-19. Only 5.5% (n = 42) of the respondents indicated having an MH problem, but 7.3% (n = 56) stated that they took regular medication for an MH problem. It was found that 21.2% (n = 163) of the respondents had family members with mental illnesses.

When asked whether they believed that they slept enough hours for their needs, 61.3% (n = 472) answered affirmatively, and only 9.1% (n = 70) indicated taking sleeping medication.

More than half of the respondents (56.0%, n = 339) did not exercise. It was found that 81.4% (n = 628) of the respondents considered their diet to be healthy (Table 2).

Table 2. Health behaviour.

	N	%
Are you or have you been in quarantine or social isolation due to suspicion of COVID-19?		
Yes	533	69.2
No	237	30.8
Do you have a mental health problem?		
Yes	42	5.5
No	728	94.5
Do you have or have you had family members with mental illnesses?		
Yes	163	21.2
No	607	78.8
Do you think you get enough sleep for your needs?		
Yes	472	61.3
No	298	38.7
Do you take sleeping medication?		
Yes	70	9.1
No	700	90.9
Do you regularly take medication for any mental health problems?		
Yes	56	7.3
No	714	92.7
Do you exercise?		
Yes	339	44.0
No	431	56.0
Do you consider your diet to be healthy?		
Yes	628	81.6
No	142	18.4

Number of hours of sleep per day: mean: 6.91 (1.24); min: 3; max: 12.

The average PMH score (total scale) was 84.7% (standard deviation of 9.9%). The most positive contributions to this score came from the dimensions "self-control" and "personal fulfilment". The mean score of the Good Mental Health Scale was 90.6% (standard deviation of 10.6%). The lowest mean scores were found in the assessment of knowledge on mental health with emphasis on the belief in the epidemiology of mental disorders and the awareness of health promotion activities.

Most of the scores show good internal reliability, except for the dimensions of the assessment of knowledge in MH which show weaker Cronbach's alpha results (0.6 to 0.7) and the PMH pro-social attitude with a result very close to unacceptable (0.555) (Table 3).

Table 3. Descriptive analysis of the Positive Mental Health Scales and Sub-Scales, Mental Health Knowledge and Good Mental Health.

	Range (Min–Max)	Average	Standard Deviation	Average	Standard Deviation	Cronbach's Alpha
Total Positive Mental Health (TPMH)	63–156	132.1	15.4	84.7	9.9	0.935
Personal Satisfaction (PMH1)	9–32	26.5	4.5	82.9	14.0	0.840
Pro-Social Attitude (PMH2)	11–20	18.2	1.8	91.0	9.1	0.555
Self-Monitoring (PMH3)	5–20	15.8	2.9	79.1	14.7	0.814
Autonomy (PMH4)	5–20	16.1	3.1	80.3	15.5	0.800
Problem Solving and Personal Achievement (PMH5)	15–36	31.6	3.7	87.8	10.2	0.788
Interpersonal Relationship Skills (PMH6)	11–28	23.8	3.3	85.1	11.8	0.743
Evaluation of Mental Health Knowledge						
Knowledge of the Characteristics of MH and Mental Disorders (ACS1)	13–25	21.8	2.4	87.3	9.5	0.677
Belief in the Epidemiology of Mental Disorders (ACS2)	6–25	13.4	3.7	53.5	14.6	0.699
Awareness of Health Promotion Activities (ACS3)	0–4	2.6	1.3	64.0	32.7	0.666
Good Mental Health Scale (GMH)	10–50	45.8	4.8	90.6	10.6	0.827

The two variables "knowledge" and "literacy and good Mental Health" are both directly related to the variation in PMH, i.e., those respondents who had more knowledge/literacy concerning mental health (total score) and those who had better total scores for good mental health also presented higher values of PMH (total) (positive correlation with p-values < 0.001, despite the correlation values being 0.124 and 0.227, which represents a small effect) (Table 4).

Table 4. Correlation between Positive Mental Health, Mental Health Knowledge and Good Mental Health Scales (n = 770).

		SPMH	SMHK
SMHK	Pearson Correlation	0.124 **	
	p	0.001	
SGMH	Pearson Correlation	0.227 **	0.077 *
	p	0.000	0.033

** Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). SPMH—sum of Positive Mental Health. SMHK—sum of Mental Health Knowledge. SGMH—sum of Good Mental Health.

From analysing Table 5, it can be seen that those who believe that they sleep enough hours for their needs show significantly higher PMH results.

Table 5. Positive Mental Health, Mental Health Knowledge and Good Mental Health Scales according to sleep hygiene.

Do You Think You Get Enough Sleep for Your Needs?	Yes		No		
	Average	Standard Deviation	Average	Standard Deviation	p
Total Positive Mental Health (TPMH)	85.7	9.8	82.9	9.9	<0.001
Personal Satisfaction (PMH1)	84.6	13.8	80.1	14.0	<0.001
Pro-Social Attitude (PMH2)	91.0	9.1	91.1	9.3	0.946
Self-Monitoring (PMH3)	80.7	14.7	76.8	14.4	<0.001
Autonomy (PMH4)	82.3	14.8	77.2	16.1	<0.001
Problem Solving and Personal Achievement (PMH5)	88.6	9.7	86.5	10.7	<0.05
Interpersonal Relationship Skills (PMH6)	85.7	11.5	84.1	12.1	0.082
Knowledge of the Characteristics of MS and Mental Disorders (ACS1)	87.0	9.5	87.7	9.6	0.280
Belief in the Epidemiology of Mental Disorders (ACS2)	53.7	15.1	53.1	13.8	0.580
Awareness of Health Promotion Activities (ACS3)	64.3	33.2	63.6	32.1	0.770
Good Mental Health Scale (GMH)	90.4	10.5	91.0	10.7	0.473

Practising physical exercise was associated with higher scores for PMH and having a greater awareness of activities to promote MH. These findings are statistically significant (Table 6).

Table 6. Positive Mental Health, Mental Health Knowledge and Good Mental Health Scales according to the practice of physical exercise.

Do You Exercise?	Yes		No		
	Average	Standard Deviation	Average	Standard Deviation	p
Total Positive Mental Health (TPMH)	86.5	8.9	83.2	10.5	<0.001
Personal Satisfaction (PMH1)	85.7	12.6	80.7	14.7	<0.001
Pro-Social Attitude (PMH2)	91.0	8.9	91.0	9.3	0.996
Self-Monitoring (PMH3)	81.9	13.5	76.9	15.2	<0.001
Autonomy (PMH4)	83.1	13.4	78.1	16.7	<0.001

Table 6. *Cont.*

Do You Exercise?	Yes		No		
	Average	Standard Deviation	Average	Standard Deviation	*p*
Problem Solving and Personal Achievement (PMH5)	89.4	9.6	86.6	10.4	<0.05
Interpersonal Relationship Skills (PMH6)	86.2	10.9	84.2	12.4	0.082
Knowledge of the Characteristics of MH and Mental Disorders (ACS1)	86.9	9.6	87.5	9.5	0.335
Belief in the Epidemiology of Mental Disorders (ACS2)	54.3	15.2	52.8	14.1	0.148
Awareness of Health Promotion Activities (ACS3)	69.2	31.4	59.9	33.2	<0.001
Good Mental Health Scale (GMH)	90.5	10.0	90.7	11.0	0.853

Eating food considered healthy meant having higher scores for PMH and having a greater awareness of activities to promote MH. These findings were statistically significant (Table 7). It should be mentioned that for the first time, the PMH dimension "Pro-social attitude" was a differentiating criterion between groups.

Table 7. Positive Mental Health, Mental Health Knowledge and Good Mental Health Scales according to healthy eating.

Do You Consider Your Diet to Be Healthy?	Yes		No		
	Average	Standard Deviation	Average	Standard Deviation	*p*
Total Positive Mental Health (TPMH)	85.8	9.4	79.5	10.7	<0.001
Personal Satisfaction (PMH1)	84.7	13.1	75.0	15.4	<0.001
Pro-Social Attitude (PMH2)	91.6	8.7	88.5	10.6	<0.05
Self-Monitoring (PMH3)	80.6	14.0	72.6	15.8	<0.001
Autonomy (PMH4)	81.5	14.5	75.1	18.5	<0.001
Problem Solving and Personal Achievement (PMH5)	88.7	9.7	83.7	11.0	<0.001
Interpersonal Relationship Skills (PMH6)	86.0	11.3	80.9	13.0	0.082
Knowledge of the Characteristics of MH and Mental Disorders (ACS1)	87.3	9.6	86.9	9.3	0.655
Belief in the Epidemiology of Mental Disorders (ACS2)	53.7	14.7	52.4	14.1	0.339
Awareness of Health Promotion Activities (ACS3)	65.7	32.6	56.5	32.6	<0.05
Good Mental Health Scale (GMH)	90.8	10.6	89.7	10.6	0.235

4. Discussion

The main objective of this study was to identify health behaviours impacting PMH during a pandemic phase and to verify if there was a relationship between literacy and PMH to prevent or try to minimize the impact of the pandemic on MH.

Based on our literature search, several studies reveal that the pandemic has had or will have a negative impact on the mental health of the general population [20–23]. A recent study conducted on patients, informal caregivers and health professionals revealed that depression, anxiety, post-traumatic stress symptoms, sleep disturbances, low self-esteem and decreased self-control are prevalent symptoms in individuals subjected to preventive measures such as quarantine and social isolation [20].

In other investigations conducted during the COVID-19 pandemic, some similar findings were observed regarding the specific aspects of PMH, specifically in the dimensions of self-control and personal achievement. Numerous studies on the self-control dimension revealed that it acts as a protective buffer between the perceived severity of the COVID-19 infection and MH, with those with the least amount of self-control being the most vulnerable [24,25].

Concerning the pro-social attitude dimension, the literature shows that all acts performed for the benefit of others offer a promising, flexible and low-cost intervention that can provide small but lasting benefits such as life satisfaction and well-being and consequently, promote better mental health. The emotional benefits suggest that pro-social attitudes can be used as interventions to improve MH [26–28].

The average level of happiness and life satisfaction during the pandemic was significantly lower than it was during the pre-pandemic period, according to studies on personal fulfilment [29,30]. Therefore, we can conclude that as these dimensions of PMH rise, the issues with MH become less severe. Thus, comparing the mean score of 84.7% for total scale for PMH in our study with that of another study carried out with Portuguese and Spanish nursing students using the same assessment instrument, we can affirm that our PMH values were also high during the pandemic phase [31] which corroborates our study.

Regarding the behaviours that promote good mental health, several authors (with different samples) concluded that getting enough sleep, eating well and practising physical exercise contributed significantly to maintaining or improving mental health during the pandemic phase [32–34].

Despite showing consensual results, some studies show that the number of individuals with sleep problems has increased since the beginning of the pandemic, with this variation being directly related to the increase in anxiety levels [35,36]. Thus, several authors defend practising good sleep hygiene as a coping strategy during a pandemic, namely in phases of social isolation [30].

Regarding the relationship between physical exercise and PMH levels, we found recent studies that are in line with our findings. These studies concluded that conscious promotion of physical activity and PMH is an effective strategy to reduce the negative impacts of the pandemic outbreak on both MH and physical health [36,37]. Of further note, another study conducted on women in China during the COVID-19 outbreak also revealed exercise as a common protective factor in depression, anxiety and stress [38]. However, it is important to note that the preventive measures against COVID-19, such as prolonged isolation and quarantine, make individuals prone to sedentary lifestyles that promote decreased physical activity. Thus, combating the sedentary lifestyle imposed by the pandemic by promoting physical activity and healthy eating can contribute to an eventual rebalancing of both physical and mental health [39].

It is also worth noting that a study conducted on Chinese university students revealed that both sleep and exercise are beneficial for mental health and probably regulate mental health through an interactive compensation mode [40].

In summary, we can infer that PMH is directly related to healthy lifestyles. Thus, in corroboration with the various studies found, we can say that promoting salutogenic behaviours also benefits MH.

Concerning health literacy, our assessment of knowledge on MH had the lowest mean scores with an emphasis on the belief in the epidemiology of mental disorders and the awareness of health promotion activities. Similar to our results, several studies in different populations (Saudi nursing students, Portuguese undergraduate students) during the pre-pandemic and pandemic phases obtained lower scores in the knowledge assessment domain. However, contrary to what we found, those studies also found higher values within literacy, namely in the belief in the epidemiology of mental disorder domain [41,42].

A recent study conducted in Italy showed that health literacy is an important factor that motivates people to follow preventive measures and consequently, adopt healthy lifestyles and behaviours [43]. Some authors reinforce that the PMH of the population worsened during the pandemic phase and that the focus of health services should be on strengthening resilience and health literacy [44]. Thus, studies infer that PMH literacy positively influences the status of MH in general [41] and is even considered a key determinant of PMH and therefore crucial for MH.

The results found in this study, in line with the other research cited, reinforces the conceptual aspects of positive mental health that have already been explored by other studies and expanding new lines of study. On the other hand, at a practical level, the correlations obtained open up new perspectives for the approach of care in the promotion of positive mental health. Due to differences in group sizes, there is a likelihood of type I errors. The probability of false positives is reduced because almost all relevant data were found to have p value less than 0.01.

4.1. Limitations and Suggestions for Future Studies

The results could be generalized if this study were to be repeated with specific work groups and in various geographic locations throughout Portugal and Europe. This study was carried out in a region of Portugal where the population is largely elderly and lacks access to computers and the internet. Given that the population tested was significantly larger than our sample size, we view this as a restriction.

We believe that the unequal composition of the sample in terms of gender could be a limitation in this study since more than half of the respondents were women (64.3%, $n = 495$) and that this is an important variable, particularly given the greater vulnerability of women in crisis/pandemic situations.

We also believe that further studies are needed to empower health professionals and the general population, with the main objective being to increase positive mental health, particularly in pandemic situations.

4.2. Practical Recommendations

The psychological consequences of the pandemic have had a major impact on the mental health of those affected, which is why we consider it essential to add a section with practical recommendations. In crisis/pandemic situations, it is essential that the population adopts healthy and preventive behaviours in order to mitigate mental health problems and at the same time, promote positive mental health. In this way, this study corroborates recent studies which tell us that the adoption of healthy behaviours such as regular physical exercise (preferably in open spaces), good sleep hygiene and healthy eating habits are fundamental.

Managing mental health and psychosocial well-being during a time of crisis is crucial for maintaining not only mental health but also physical health.

5. Conclusions

With this study, we can conclude that during the pandemic phase, those who had more knowledge of mental health and adopted healthy/health-promoting behaviours were the ones who showed better positive mental health. With the data from this study, we can infer that those who, during the pandemic phase, had more knowledge about mental health and adopted healthy/health-promoting behaviours were the ones who apparently had better positive mental health (Pearson's coefficient = 0.124 and 95% confidence interval).

Continuous evaluation of the impact of changes in lifestyle behaviours associated with the pandemic is necessary and health promotion strategies aimed at the adoption/maintenance of positive health-related behaviours should be used to address the increase in mental illnesses during identical phases. Understanding the prevalence of behaviours promoting good mental health can provide key information on essential areas of intervention concerning health promotion/literacy programs. Thus, the results of this study may have implications for planning strategies to promote healthy behaviours, providing a theoretical basis for governments, health institutions and health professionals to implement or improve effective policies and interventions for better adaptation in future pandemic crises.

Author Contributions: Conceptualization, C.A., A.N. and C.S.; methodology, C.A., A.N., C.S. and M.L.C.; software, A.N.; validation, C.S., A.N. and M.L.C.; formal analysis, C.A. and A.N.; investigation, C.A., A.N., C.S., M.L.C. and C.F.-G.; data curation, C.A., A.N., C.S., M.L.C. and C.F.-G.; writing—original draft, C.A., A.N., C.S. and M.L.C.; writing—review and editing, A.N., C.S. and M.L.C.; supervision, A.N., C.S., M.L.C. and C.F.-G. All authors have read and agreed to the published version of the manuscript.

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Informed Consent Statement: Informed consent was obtained electronically from all participants involved in the study.

Data Availability Statement: Data is available on request to the corresponding author.

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Conflicts of Interest: The authors declare no conflict of interest.

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3º Artigo Submetido – Journal of Psychiatric Research - Covid-19: Positive Mental Health - Trait or State - A Longitudinal Study.

(Anexo IX)

Almeida C, Novo A, Canut ML, Ferré-Grau C, Sequeira C. (2024). Covid 19: Positive Mental Health - Trait or State - A Longitudinal Study. Journal of Psychiatric Research [submitted]

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Journal of Psychiatric Research

COVID-19: POSITIVE MENTAL HEALTH - TRAIT OR STATE. A LONGITUDINAL STUDY

--Manuscript Draft--

Manuscript Number:	
Article Type:	Original article
Keywords:	Covid-19; mental health; Psychological Vulnerability
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Manuscript Region of Origin:	Europe
Abstract:	A person's Positive Mental Health is an important protective construct, fundamental for reinforcing and enhancing mental health, particularly for coping with the adversities arising from a pandemic. Therefore, we consider it relevant to investigate the Positive Mental Health and Psychological Vulnerability of people subjected to adverse conditions in times of pandemic and to compare the same variables in the same sample at a time coinciding with the end of the restrictions imposed by the pandemic. Since mid-March 2020, a state of emergency was declared in Portugal due to the COVID-19 pandemic and public health protection measures with a major impact on the population's mental health were implemented, measures that were revoked at the end of September 2022. Consequently, two years after the start of the pandemic, the aim of this study was to assess the Positive Mental Health of individuals from a region of Portugal who were tested for suspected COVID-19 infection and to compare the Psychological Vulnerability variable with the Positive Mental Health of the same sample during and after the pandemic phase. Methods This is a quantitative, longitudinal, descriptive, and correlational study using a sample of 196 individuals. The first evaluation and data collection took place from October 2020 to January 2021 and was repeated from January to March 2023. The data collection was carried out using instruments that were sent and completed online. The instruments used were a sociodemographic characterisation questionnaire, i.e., the Positive Mental Health Questionnaire, and the Psychological Vulnerability Scale. Results The results allow us to state that there is a possibility that Positive Mental Health is a "stable" trait of the person, given the consistency of the results of the sum of Positive Mental Health (p=0.425) and the sum of Psychological Vulnerability (p=0.496) in the two evaluations. Conclusions People who had a higher level of Positive Mental Health before COVID-19, were the least affected by the pandemic, and there was also less Psychological Vulnerability. We therefore conclude that Positive Mental Health can be seen as a protective factor against mental vulnerability and adversity.
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Cover letter

Cláudia Patrícia Pires Almeida

09-06-2024

Dear Editor,

We wish to submit an original research article entitled "COVID-19: POSITIVE MENTAL HEALTH - TRAIT OR STATE - A LONGITUDINAL STUDY" for consideration by the International Journal of Nursing Studies.

All co-authors have contributed significantly and agree with the contents of the manuscript and there is no financial interest to report. We confirm that neither the manuscript nor any parts of its content are currently under consideration or published in another journal.

In this paper, we show that people who had a higher level of Positive Mental Health before COVID-19, were the least affected by the pandemic, and there was also less Psychological Vulnerability. We therefore conclude that Positive Mental Health can be seen as a protective factor against mental vulnerability and adversity. The statistically significant results obtained in this study reinforce the need for greater investment in mental health promotion, as it enables gains with a lasting character.

Given the relevance of the results, we hope this topic is of interest to your readers and acceptable for publication in your prestigious Journal.

All authors have approved the manuscript and agree with its submission to International Journal of Nursing Studies.

Please address all correspondence concerning this manuscript to me at claudialmeida_21@hotmail.com

Thank you for your consideration of this manuscript.

Sincerely,

Cláudia Almeida

abstrat File

COVID-19: POSITIVE MENTAL HEALTH - TRAIT OR STATE

A LONGITUDINAL STUDY

Absctract

Positive Mental Health is an important protective construct, fundamental for reinforcing and enhancing mental health. Therefore, we consider it relevant to investigate the Positive Mental Health and Psychological Vulnerability of people subjected to adverse conditions during the pandemic and compare the same variables in the same sample at a time coinciding with the end of the restrictions imposed by the pandemic.

Aim

This study aimed to assess the Positive Mental Health of individuals from a region of Portugal who were suspected COVID-19 infection and to compare the Psychological Vulnerability variable with the Positive Mental Health during and after the pandemic phase.

Methods

This quantitative, longitudinal, descriptive, and correlational study used a sample of 196 individuals. The instruments used were a sociodemographic characterisation questionnaire, the Positive Mental Health Questionnaire and the Psychological Vulnerability Scale.

Results

The results allow us to state that there is a possibility that Positive Mental Health is a "stable" trait of the person, given the consistency of the results of the sum of Positive Mental Health and the sum of Psychological Vulnerability on both evaluations.

Conclusions

We conclude that Positive Mental Health can be seen as a protective factor against mental vulnerability and adversity.

Keywords: COVID-19; Mental Health; Psychological Vulnerability

Title Page (with author details and affiliations)

Title

COVID-19: POSITIVE MENTAL HEALTH - TRAIT OR STATE
A LONGITUDINAL STUDY

Authors

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Acknowledgments

The authors would like to thank everyone who directly or indirectly took part in this research.

Ethics approval statement

This study was approved by the Ethics Committee and Administrative Council of the Health Unit where the participants were recruited on 16 September 2020 (Reference 24/2020). All the participants gave their informed consent electronically before completing the assessment instruments.

Data availability

Research data for this article

Due to the sensitive nature of the questions asked in this study, survey respondents were assured raw data would remain confidential and would not be shared.
The data that has been used is confidential.

COVID-19: POSITIVE MENTAL HEALTH - TRAIT OR STATE. A LONGITUDINAL STUDY

What is already known

1. Mental health is a state of well-being that involves not only the absence of illness, but also the ability to deal with life's challenges in a positive and productive way.
2. The concept of Positive Mental Health is a terminology directed and specifically dedicated to the promotion of Mental Health in a perspective of strengthening and developing the optimal functioning of human beings, reinforcing and enhancing Mental Health in general.

What this paper adds

1. Positive Mental Health plays a fundamental role in protecting Mental Health and reducing Psychological Vulnerability.
2. The statistically significant results obtained in this study reinforce the need for greater investment in mental health promotion, as it enables gains with a lasting character.

Abstract

A person's Positive Mental Health is an important protective construct, fundamental for reinforcing and enhancing mental health, particularly for coping with the adversities arising from a pandemic. Therefore, we consider it relevant to investigate the Positive Mental Health and Psychological Vulnerability of people subjected to adverse conditions in times of pandemic and to compare the same variables in the same sample at a time coinciding with the end of the restrictions imposed by the pandemic.

Since mid-March 2020, a state of emergency was declared in Portugal due to the COVID-19 pandemic and public health protection measures with a major impact on the population's mental health were implemented, measures that were revoked at the end of September 2022. Consequently, two years after the start of the pandemic, the

aim of this study was to assess the Positive Mental Health of individuals from a region of Portugal who were tested for suspected COVID-19 infection and to compare the Psychological Vulnerability variable with the Positive Mental Health of the same sample during and after the pandemic phase.

Methods

This is a quantitative, longitudinal, descriptive, and correlational study using a sample of 196 individuals. The first evaluation and data collection took place from October 2020 to January 2021 and was repeated from January to March 2023. The data collection was carried out using instruments that were sent and completed online. The instruments used were a sociodemographic characterisation questionnaire, i.e., the Positive Mental Health Questionnaire, and the Psychological Vulnerability Scale.

Results

The results allow us to state that there is a possibility that Positive Mental Health is a "stable" trait of the person, given the consistency of the results of the sum of Positive Mental Health ($p=0.425$) and the sum of Psychological Vulnerability ($p=0.496$) in the two evaluations.

Conclusions

People who had a higher level of Positive Mental Health before COVID-19, were the least affected by the pandemic, and there was also less Psychological Vulnerability. We therefore conclude that Positive Mental Health can be seen as a protective factor against mental vulnerability and adversity.

Keywords: Mental Health; COVID-19; Psychological Vulnerability

COVID-19: POSITIVE MENTAL HEALTH

Background

Worldwide, as of January 2024, more than 770 million confirmed cases of COVID-19 and more than 7 million deaths have been reported to the World Health Organization (World Health Organization, 2024). The COVID-19 pandemic has had a significant impact on the mental health of populations around the world. In addition to the direct consequences of the viral infection, the social and economic changes resulting from the measures adopted to control the spread of the virus have also negatively affected mental health. Some of the factors that have contributed to this impact include: public health measures (restrictions such as social distancing and isolation); a sense of fear and uncertainty (uncertainty about the future and the evolution of the disease has generated anxiety and worry) and socio-economic consequences (there has been an increase in cases of anxiety, depression, burnout and obsessive-compulsive disorders in unemployed populations). These mental health problems affected different groups, including adolescents, women and health professionals (Faro *et al.*, 2020; Dantas, 2021).

Consequently, states of health or illness result from a set of relationships formed by multiple events during the life cycle, and health can be considered the state of balance or harmony between the different personal dimensions. However, there are stressors in people's lives that can alter this state of equilibrium (Gloria Novel Martí, María Teresa Lluch Canut, 2020). Faced with these situations, we must develop strategies that allow us to overcome these difficulties in a positive way and adapt to new adversities.

As a way of adapting during the pandemic, some strategies were implemented to minimise negative impacts, such as the public health protection measures that were implemented in mid-March 2020 and then revoked at the end of September 2022. (Diário da Republica, 2022). These restrictions and subsequent protective measures have affected the mental health of the general population and, as mentioned above, particularly the most vulnerable groups (adolescents, women, healthcare workers) (Sampaio, Sequeira and Teixeira, 2021; Almeida *et al.*, 2023; Marchetti *et al.*, 2023).

COVID-19: POSITIVE MENTAL HEALTH

Recent longitudinal studies have reported a wide range of long-term sequelae in survivors infected with COVID-19 (Carfì, Bernabei and Landi, 2020; Huang *et al.*, 2021) and pre-pandemic mental health considered to be good became, during and after the pandemic, a problem of mental illness with very marked depressive and anxiety symptoms, particularly in women (Jamshaid *et al.*, 2023).

Considering that Positive Mental Health is defined as a state of full well-being in which individuals are able to develop their abilities, cope with stressful everyday experiences, enjoy their personal, social and working lives and are able to contribute to society (Tamminen *et al.*, 2020), and that it is a term directed and dedicated especially to the promotion of mental health from the perspective of strengthening and developing the optimal functioning of the human being (M. Lluch, 2008; Teixeira, Sequeira and Lluch Canut, 2021), we consider it essential to strengthen and boost Mental Health in the post-pandemic phase. Therefore, we continued studying and addressing these issues to better understand and mitigate the impacts on mental health during and after the pandemic, and to promote post-pandemic mental health as it is crucial to strengthen everyone's Positive Mental Health.

Thus, the aim of this study was to assess the Positive Mental Health of individuals from a region of Portugal who were tested for suspected COVID-19 infection and to compare the Psychological Vulnerability variable with the Positive Mental Health of the same individuals during and after the pandemic phase. We also hypothesised whether Positive Mental Health could be considered a trait or state inherent to the individual. Thus, like certain psychiatric pathologies, Positive Mental Health could also be considered a trait, i.e., when it refers to a more stable aspect related to the individual's propensity to deal with a given situation more or less easily throughout their life, or a state when it reflects a transient reaction directly related to an adverse situation that arises at a specific moment in time (Cattell and Scheier, 1961).

The objectives of this study were also to verify whether there was a relationship between those who complied with isolation measures and whether the perception of the severity of the illness affected their Positive Mental Health.

To the best of our knowledge, this is the first study, that uses these evaluation tools and investigates the associations between these different domains in a phase coinciding with the end of the restrictions imposed by the pandemic.

Methods

We carried out a quantitative, longitudinal, descriptive and correlational study. The sample consisted of 196 individuals, suspected of COVID-19 infection, screened in the testing units of a health institution in northern Portugal and who agreed to participate voluntarily.

The individuals who were 18 or older, were willing to participate and expressed so by signing the informed consent form, had been tested for suspected COVID-19 infection and had taken part in the first study carried out, were included in this study.

In the first phase, each individual was sent a free and informed consent form they should complete to take part in the study. In a second phase, each participant was sent a sociodemographic questionnaire (sociodemographic data: gender, age, marital status and level of education), questions related to the pandemic phase (whether they had been in isolation and whether they had manifested symptoms and what their perception of their severity was), the Positive Mental Health Questionnaire (Sequeira and Carvalho, 2009) and the Psychological Vulnerability Scale (Nogueira, Barros and Sequeira, 2017).

The individuals who took part in the study were assessed at two different moments. The first evaluation took place from October 2020 to January 2021 (at the peak of the pandemic) and the second from January to March 2023

(coinciding with the end of all restrictions imposed by the pandemic). All the instruments were sent by email and filled in on an online platform.

Evaluation tools

The primary outcome measured in this study was Positive Mental Health, assessed by the Positive Mental Health questionnaire. The Positive Mental Health questionnaire was translated and validated into Portuguese by Sequeira and Carvalho (Sequeira and Carvalho, 2009; Sequeira *et al.*, 2014) and is based on the multifactorial model developed by Teresa Lluch (Lluch, 1999; M. T. Lluch, 2008). The questionnaire consists of 39 items assessed on an ordinal scale, with a maximum score of 156 points and a minimum of 39 points, distributed unevenly among the 6 factors: F1: Personal Satisfaction (8 items); F2: Pro-social Attitude (5 items); F3: Self-Control (5 items); F4: Autonomy (5 items); F5: Problem Solving and Personal Achievement (9 items) and F6: Interpersonal Relationship Skills (7 items).

The items are expressed as positive or negative statements and rated on a Likert-type scale from 1 to 4 according to how often they occur (rating of 1 = always or almost always; 2 = quite often; 3 = sometimes; and 4 = rarely or never). The positive statements are: 4, 5, 11, 15, 16, 17, 18, 20, 21, 22, 23, 25, 26, 27, 28, 29, 32, 35, 36 and 37. The remaining items are negative statements. The questionnaire gives an overall score for Positive Mental Health, so the higher the value obtained in this evaluation instrument, the higher the level of Positive Mental Health. The original questionnaire proved to be an instrument with very good internal consistency (Cronbach's alpha between 0.89 and 0.90) and a test-retest correlation of 0.85. All the items of this questionnaire have a factor loading above 0.40.

The second instrument used in this study was the Psychological Vulnerability Scale translated by Nogueira, Barros & Sequeira (Nogueira, Barros and Sequeira, 2017) originally designed to identify vulnerable individuals in chronically ill adult populations. It consists of 6 self-completion statements quoted on a Likert scale with five possible answers (going from 1 = does not describe me at all, to 5= it describes me very well = 5). The total scores vary

from 6 to 30 points, with higher scores indicating greater Psychological Vulnerability. In the original version, the Cronbach's alpha coefficient ranged from 0.71 to 0.87 and in Portugal, in a sample of higher education students, the reliability of this scale was also checked, showing positive results (Cronbach's alpha = 0.73).

Statistical analysis

All the data was analysed using IBM SPSS v.22.
Descriptive statistics were used to outline the sociodemographic characteristics of the sample. Pearson's Correlation was calculated between the sum of Vulnerability and the sum of Positive Mental Health, and the different factors; and a comparison was made between the values of the first and second evaluation using the Independent Samples *t*-test, with *p*-values of less than 0.05 being considered statistically significant.

Ethical considerations

This study was approved on 16 September 2020 by the Ethics Committee and the Board of Directors of the Local Health Unit where the study took place (Statement no. 24/2020). All the participants gave their informed consent electronically before taking part and completing the evaluation instruments.

Results

Approximately two years after the first evaluation, the sample of this study consisted of 196 individuals, mostly female (67.3%) (n=132); 107 were married or in a marital partnership (54.6%) and 48% had completed a degree (n=94). Most of the respondents complied with the isolation measures (n=167, corresponding to 85.2% of the sample), 57.7% had symptoms (n=113), 32.2% considered their symptoms to be of moderate severity (n=63) and only 3 required hospitalisation (1.3%) (supplementary file 1, table 1). The average age of the sample was 41.32 years (minimum of 20 and maximum of 75).

A comparison was made between the two moments in relation to Positive Mental Health and Psychological Vulnerability values. There were no

statistically significant changes between evaluations, i.e., Positive Mental Health proved to be a relatively stable trait, not temporary, coinciding with the Psychological Vulnerability values (supplementary file 1, table 2).

When we compared the results of the first evaluation of Positive Mental Health and Psychological Vulnerability with the perceived severity of symptoms in the post-pandemic period, we verified that there were statistically significant differences between the mild and moderate symptoms groups in F1 (Personal Satisfaction), F5 (Problem Solving and Personal Achievement), and the total Positive Mental Health. In F6 (Interpersonal Relationship Skills), the difference was between mild and severe symptoms. In F3 (Self-control), we verified statistically significant changes between mild, moderate, and severe symptoms. Also, in this analysis, those with mild symptoms reported less vulnerability.

From these results, we can infer that those who had higher Positive Mental Health and lower vulnerability at the first evaluation managed to avoid the perception of moderate COVID-19 symptoms over time, but not severe symptoms. Mental health can be seen as a protective factor in relation to the perceived severity of symptoms (supplementary file 1, table 3).

Finally, when we investigated whether there was a relationship between those who had complied with isolation measures, we found that there were no statistically significant differences between the first and second evaluations and we inferred that the fact that they had complied with isolation/quarantine measures did not affect their Positive Mental Health and psychological vulnerability (supplementary file 1, table 4).

Discussion

The main objective of this study was to compare Positive Mental Health and Psychological Vulnerability in the same group of individuals during and after the pandemic phase, examining whether there was a relationship between those who complied with isolation measures and whether the perception of the severity of the disease affected their Positive Mental Health. Several studies have reported the negative impact of COVID-19 on the general

population (Hossain, Sultana and Purohit, 2020; Lei *et al.*, 2020; Liang *et al.*, 2020; Montserrat-Capdevila *et al.*, 2024). As such, we believe it is important to invest in research into protective mental health factors in order to adapt government responses and minimise the impact of future pandemics.

In this study, we found that those who had higher levels of Positive Mental Health were able to maintain those levels, regardless of the adversities resulting from the pandemic, and the Psychological Vulnerability values also did not undergo statistically significant changes. We can therefore infer that the pandemic had no impact on the Positive Mental Health or the Psychological Vulnerability of the sample.

Although the literature on protective factors during the COVID-19 pandemic is quite limited, we found studies that corroborate the findings of this research, considering Positive Mental Health as a protective factor that alleviates the negative impact of potentially traumatic events (Miragall *et al.*, 2022) and which consider that positive psychological variables attenuate psychological distress so that it does not fluctuate greatly even in times of pandemic (Laurene *et al.*, 2024). Of note is a study of individuals with mood disorders who reported positive changes in their lives that have benefited their mental health during the pandemic. The implementation of usual coping strategies during the pandemic was not affected or was easier than in the pre-pandemic period (Gordon-Smith *et al.*, 2024). Thus, these coping strategies, such as self-control skills, can be seen as facilitating factors for Positive Mental Health and may explain why there were no significant changes.

Positive Mental Health can also play an important role as a protective factor in relation to the perceived severity of COVID-19 symptoms. A healthy and positive mind tends to face challenges in a more optimistic and resilient manner, which will influence the way a person perceives and copes with the symptoms of the disease. There are some studies that corroborate these results, particularly when assessing the perception of symptoms, self-control, and satisfaction with life. Thus, the perceived severity of symptoms can act as a protective factor, alleviating the psychological impact of the pandemic on general health and life satisfaction (Zheng, Miao and Gan, 2020), with self-

control being identified as the most promising protective factor, moderating the association between perceived severity of mental health problems and COVID 19 (Li *et al.*, 2020; Lindner *et al.*, 2022). Still about self-control, as a protective factor and buffer against the consequences of the stress of the pandemic, other studies confirm that those who give more meaning to their lives, who are able to regulate impulses and emotions, are the least likely to develop signs of mental illness (Schnell and Krampe, 2020). These findings suggest that, compared to those with high levels of self-control, individuals with low self-control are more vulnerable and need more psychological support to maintain their mental health in the face of a pandemic outbreak.

On the other hand, there are also studies, notably one carried out with individuals diagnosed with COVID-19 in Switzerland, which concluded that the proportion of individuals suffering from symptoms of depression, anxiety or stress during the lockdown phase of the pandemic increased with the severity of COVID-19 symptoms in the acute phase, particularly among those who manifested severe and very severe symptoms (Domenghino *et al.*, 2022). In other words, those who manifested greater perceived symptom severity were those who showed more symptoms of mental illness and greater vulnerability. However, we also found recent evidence that reports the opposite, namely an increase in Mental Health in post-pandemic evaluations. These findings are driven by those who were already facing psychological challenges in the pre-pandemic era. That is, coping with acute situations such as the pandemic can contribute to stabilising the previously impaired Mental Health through processes of reevaluation and adaptation (Reutter *et al.*, 2024). It is therefore essential to recognise that, even in the face of difficulty, the ability to reformulate and find new perspectives can be a valuable resource for Mental Health.

Concerning the analysis of the results obtained for the variable 'need for isolation/quarantine', we found that there were no statistically significant changes between the two evaluations, which leads us to believe that the fact that there was a need for social distancing did not affect the respondents' Psychological Vulnerability and Positive Mental Health. Recent studies reveal

the possibility that the forced reduction in social contact during the pandemic had less impact on some individuals whose symptoms had already led them to limit their social contacts at an earlier stage. Therefore, isolation was viewed positively and allowed for a slower pace of life, with more time at home and more time for reflection (Gordon-Smith *et al.*, 2024).

These findings may also be related to the fact that isolation has been seen as a protective measure in the sense that the population feels more protected and thus reduces the fear and anxiety of being contaminated or contaminating someone close to them. Following on from this and corroborating what we reported above, we found studies indicating other positive aspects of isolation, namely when participants report greater concern about family members, about the possibility of becoming seriously ill or infected, and even appreciating isolation as a time to relax and enjoy the company of the family (Domenghino *et al.*, 2022).

However, there are studies that report that despite proving to be an effective strategy, isolation measures/quarantine have led to an increase in Mental Health problems and a deterioration in well-being in general (Brooks *et al.*, 2020; Rossi *et al.*, 2020), with psychological distance/isolation possibly serving as a mediating factor that explains how the COVID-19 pandemic affects perceived general health and life satisfaction (Zheng, Miao and Gan, 2020). Thus, although physical distancing is an important strategy to protect against physical illness, it often results in social isolation and loneliness, and in previous pandemics there has been a significant increase in depressive symptoms, especially for vulnerable groups (Liu *et al.*, 2012; Calati *et al.*, 2020).

Limitations

In this longitudinal study, there was less response from participants who were less willing to answer the questionnaires in the second evaluation, due to a high drop-out rate and a longer data collection time.

Conclusions

We conclude that Positive Mental Health plays a fundamental role in the perception of the severity of COVID-19 symptoms and is associated with greater psychological resilience. A healthy and positive mind tends to face challenges in a more optimistic and resilient manner, which can influence how the individual perceives and copes with the symptoms of the disease. We also found that Positive Mental Health plays a crucial role in the pre- and post-COVID 19 era, and that there is a relationship between Positive Mental Health, psychological vulnerability and complying with of social isolation.

From this study we can infer that Positive Mental Health can be considered a trait, i.e., a personal characteristic that is relatively stable over time. In other words, those who have Positive Mental Health are able to maintain it regardless of the adversities imposed by potentially traumatic events.

Consequently, we believe that further research into the effects of Positive Mental Health during and after the pandemic era has revealed significant findings in Mental Health. The pandemic has brought several emotional challenges, which have affected people's quality of life. Investing in the promotion of Mental Health is crucial to ensure long-lasting gains and therefore, by prioritizing Positive Mental Health, we can build a more resilient society ready to face future challenges.

Conflict of interest
There is no financial interest to report.

Funding sources
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Qualitative findings	Where verbal data is used always include key quotations to support inferences and give meaningful (anonymous) individual subject identifiers for each quotation used.	✔
Funding sources	State sources of funding and the role of funders in the conduct of the research or include a statement 'no external funding' **at the end of the paper**.	✔
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Declaration of Interest Statement

Declaration

Conflict of interest disclosure and funding statement

There is no financial or conflict of interest to report.

Supplementary Material

Supplementary file 1

Table 1 - Characterisation of the sample

	N	%
Sex		
Female	132	67.3
Male	64	32.7
Marital status		
Single	69	35.2
Married/marital partnership	107	54.6
Divorced/Separated	19	9.7
Widow/Widower	1	0.5
Level of Education		
Primary Education 1st cycle	1	0.5
Basic Education 2nd/3rd cycle	4	2
Secondary Education	61	31.1
Bachelor's degree	4	2
Degree	94	48
Master	25	12.8
Doctoral Programme	7	3.6
Isolation		
Yes	167	85.2
No	29	14.8
Symptomatology present		
Yes	113	57.7
No	25	12.8
No answer	58	29.6
Severity of symptoms		
Mild	42	21.4
Moderate	63	32.1
Severe	8	4.1
No answer	83	42.3
Hospitalisation		
Yes	3	1.3
No	110	56.1
No answer	83	42.3
Age: Average 41.32 years (SD 11.69); Min: 20; Max: 75		

Primary Education First Cycle - 1st, 2nd, 3rd and 4th years; Primary Education second/third Cycle – 5th to 9 years
SD - Standard Deviation;Min- Minimum; Max Maximum -

Table 2 - Comparison between PMH and Psychological Vulnerability during and after the pandemic phase (n=196)

	SPMH in pandemic phase	Post-pandemic SPMH	Psychological Vulnerability pandemic phase	Post-pandemic psychological vulnerability
Average	131.08	130.29	15.02	14.81
Median	134	132	14	14
Standard Deviation	16.26	17.01	5.37	5.13
Minimum	63	77	6	6
Maximum	156	156	29	30
P	0.425	0.425	0.496	0.496

SPMH – Sum of Positive Mental Health

Table III - Comparison of PMH factors. Sum of PMH and Sum of Psychological Vulnerability during the pandemic phase with the severity of perceived symptoms in the post-pandemic phase

Perceived severity of symptoms		**PMH F1**	**PMH F2**	**PMH F3**	**PMH F4**	**PMH F5**	**PMH F6**	**SPMH**	**SPV**
Mild (n=42)	Average	27.29	18.05	16.67	15.98	32.33	24.6	134.9	13.74
	Standard Deviation	3.691	2.083	2.486	3.25	3.31	3.132	13.933	4.623
	Minimum	19	12	10	7	23	11	91	6
	Maximum	32	20	20	20	36	28	156	24
Moderate (n=63)	Average	24.62	18.29	14.32	15.52	30.25	23.57	126.57	16.62
	Standard Deviation	4.969	1.65	3.56	3.015	3.885	3.439	17.151	5.335
	Minimum	11	13	6	8	22	12	77	6
	Maximum	32	20	20	20	36	28	155	25
Severe (n=8)	Average	25.63	17.63	13	14.88	29.63	21.5	122.25	13.5
	Standard Deviation	7.386	2.264	4.375	4.998	7.19	5.904	28.749	7.746
	Minimum	10	14	5	5	15	11	63	6
	Maximum	31	20	18	20	36	28	151	29
Total (n=113)	Average	25.68	18.15	15.1	15.65	30.98	23.81	129.36	15.33
	Standard Deviation	4.865	1.858	3.472	3.248	4.088	3.6	17.466	5.427
	Minimum	10	12	5	5	15	11	63	6
	Maximum	32	20	20	20	36	28	156	29
Mild vs. Moderate	*p*	0.017	1	0.001	1	0.03	0.449	0.047	0.021
Mild vs. Severe	*p*	1	1	0.013	1	0.243	0.076	0.171	1
Moderate vs. Severe	*p*	0.573	1	0.854	1	1	0.366	1	0.118

PMH - Positive Mental Health; SPMH - Sum of Positive Mental Health; SPV - Sum of Psychological Vulnerability; F1 - Personal Satisfaction; F2 - Pro-social Attitude; F3 - Self-Control; F4 - Autonomy; F5 - Problem Solving and Personal Achievement; F6 - Interpersonal Relationship Skills.

Table 4 - Comparison between the Psychological Vulnerability Score and the Positive Mental Health Score in the first and second evaluations taking isolation/quarantine measures into account.

Isolation/Quarantine		SPV 1ST Evaluation	SPMH 1ST Evaluation	SPV 2ND Evaluation	SPMH 2ND Evaluation
Yes	N	167	167	167	167
	Average	15.25	130.92	15.01	130.62
	Std. Deviation	5.255	16.507	5.238	17.185
	Minimum	6	63	6	77
	Maximum	29	156	30	156
No	N	29	29	29	29
	Average	13.72	131.97	13.66	128.41
	Std. Deviation	5.921	15.015	4.32	16.119
	Minimum	7	103	6	91
	Maximum	28	154	22	155
Total	N	196	196	196	196
	Average	15.02	131.08	14.81	130.29
	Std. Deviation	5.37	16.263	5.125	17.01
	Minimum	6	63	6	77
	Maximum	29	156	30	156
	p	0.203	0.735	0.138	0.505

SPV - Sum of Psychological Vulnerability
SPMH - Sum of Positive Mental Health

CONCLUSÕES E IMPLICAÇÕES PARA A PRÁTICA

Conclusões

A pandemia COVID 19, iniciada em março de 2020, trouxe desafios significativos para a saúde pública em Portugal, especialmente no que diz respeito à saúde mental da população. A Saúde Mental Positiva emergiu como um recurso vital para enfrentar essas adversidades, promovendo uma vida mais satisfatória e resiliente. Estudos recentes abordaram a importância da Saúde Mental Positiva e da sua relação com a Vulnerabilidade Psicológica, bem como o papel da Literacia em saúde na promoção de comportamentos saudáveis durante a pandemia.

Os três estudos realizados destacam a importância da Saúde Mental Positiva durante a pandemia de COVID 19, num período marcado por medidas de isolamento social e *stress* generalizado sublinhando a necessidade urgente de intervenções de saúde mental em tempos de crise, especialmente para populações vulneráveis. No que diz respeito a este trabalho, o primeiro estudo, com uma amostra de 387 indivíduos infetados pela COVID 19, destacou que cerca de 50,4% dos participantes tinham valores globais de Saúde Mental Positiva situados no quartil 50, observando-se uma diferença estatisticamente significativa entre os géneros, com as mulheres a apresentar maior Vulnerabilidade Psicológica e níveis mais baixos de Saúde Mental Positiva quando comparadas com os homens. Estes achados sublinham a necessidade de considerar a variável Sexo como um fator de Vulnerabilidade em discussões sobre Saúde Mental, tanto em contextos pandémicos quanto em situações normais. O segundo estudo realizado focou-se na Literacia em saúde e na sua influência na adoção de comportamentos que promovem a Saúde Mental Positiva. Com uma amostra de 770 indivíduos, a pesquisa revelou que aqueles que demonstravam mais Literacia em saúde mental, que dormem horas suficientes, que praticam exercício físico regularmente, que se alimentam de forma saudável e participam de atividades de promoção da Saúde Mental, apresentam scores mais altos de Saúde Mental Positiva. Estes resultados sugerem que o aumento do conhecimento sobre Saúde Mental e a adoção de comportamentos saudáveis são determinantes cruciais para a melhoria da Saúde Mental Positiva.

Finalmente, o terceiro estudo, um estudo longitudinal, com uma amostra de 196 indivíduos avaliou a Saúde Mental Positiva e a Vulnerabilidade Psicológica durante e após a pandemia, entre outubro de 2020 e março de 2023. Os resultados indicaram que a

Saúde Mental Positiva pode ser uma característica estável do indivíduo, dada a consistência dos resultados nas duas avaliações. Esses achados reforçam a ideia de que a Saúde Mental Positiva atua como um fator protetor contra a Vulnerabilidade mental e as adversidades.

Em síntese, a evidência sugere que a Saúde Mental Positiva é um recurso essencial para enfrentar as adversidades decorrentes de crises sanitárias, como a pandemia COVID 19. A diferença de género na Vulnerabilidade Psicológica e a importância da Literacia em saúde para a promoção de comportamentos saudáveis são aspetos cruciais que devem ser considerados em futuras intervenções de saúde mental. Ainda a referir que, a estabilidade da Saúde Mental Positiva como característica individual sublinha a sua importância como um fator protetor fundamental. Portanto, políticas e programas de Saúde Mental devem integrar estratégias para melhorar a Saúde Mental Positiva, focando-se particularmente na educação em saúde e na promoção de comportamentos saudáveis, visando aumentar a resiliência da população frente a futuras adversidades.

Implicações para a Prática Clínica e Sugestões Futuras

Os estudos realizados oferecem recomendações práticas claras para a saúde pública e para a prática clínica. As suas conclusões sublinham a importância de integrar estratégias que considerem o género e promovam a Literacia em saúde nas políticas e programas de Saúde Mental, visando fortalecer a resiliência da população e melhorar a resposta a crises futuras. Embora os estudos realizados forneçam *insights* valiosos para a formulação de políticas e programas eficazes, também abrem caminho para futuras pesquisas.

- Desenvolvimento de Programas de Saúde Mental Específicos por Género:

Dada a maior Vulnerabilidade Psicológica observada em mulheres, é crucial desenvolver programas de Saúde Mental que abordem especificamente as necessidades de cada género. Devem ser adaptadas intervenções para oferecer suporte adequado e eficaz a mulheres e homens, reconhecendo as suas diferenças nas respostas à adversidade.

- Promoção da Literacia em Saúde Mental:

Implementar campanhas de educação em Saúde Mental para aumentar a Literacia em saúde na população em geral. Estas campanhas devem enfatizar a importância de comportamentos promotores de saúde, como sono adequado, exercício regular, alimentação saudável e participação em atividades de promoção da Saúde Mental.

- Integração da Saúde Mental Positiva nas Políticas de Saúde Pública:

Incorporar a Saúde Mental Positiva como um componente central nas políticas de saúde pública. Devem ser desenvolvidas estratégias para avaliar e monitorizar a Saúde Mental Positiva ao longo do tempo, proporcionando recursos para fortalecer a resiliência mental da população em períodos de crise.

- Estudos Longitudinais sobre Saúde Mental:

Continuar a realizar estudos longitudinais para entender melhor a estabilidade da Saúde Mental Positiva e as suas variações em diferentes contextos.

- Intervenções Personalizadas e Acessíveis:

Desenvolver e implementar intervenções de Saúde Mental que sejam acessíveis e personalizadas para diferentes segmentos da população. Tecnologias digitais e plataformas online podem ser utilizadas para alcançar um público mais amplo, oferecendo suporte contínuo e adaptável às necessidades individuais, especialmente em tempos de isolamento social e outras restrições.

DISSEMINAÇÃO DA INVESTIGAÇÃO

A disseminação da investigação é um componente crucial no ciclo de vida da pesquisa, não apenas pela sua função de compartilhar conhecimentos e resultados, mas também pelo seu papel na construção de uma comunidade científica mais robusta e interconectada. Desta forma, passo a descrever os citar os eventos onde foi divulgado o conhecimento resultante deste trabalho (comprovativos no Anexo X):

Seminários:

Encontro Internacional de Literacia e Saúde Mental Positiva – Escola Superior de Enfermagem do Porto (junho de 2020) – Apresentação do Projeto

XIV Seminário Internacional de Investigação – Universidade Rovira i Virgili – Apresentação da Tese em 10 min

Webinar:

Integrado no Seminário de investigação em Enfermagem e Saúde Mental 2021 - Universidade Rovira i Virgili:

"Saúde Mental Positiva em doentes suspeitos de infeção por COVID 19"

Posters:

Apresentação do póster "A Saúde Mental Positiva de pessoas submetidas a teste COVID no distrito de Bragança" inserido no NURSID WINTER SCHOOL 2020

Apresentação do póster "Covid 19: Saúde Mental Positiva, Vulnerabilidade e Sexo" inserido no XIII Congresso Internacional d'A Sociedade Portuguesa de Enfermagem de Saúde Mental em outubro de 2022

Apresentação do póster "Covid 19: Impacto da Literacia e da Adopção de Comportamentos Promotores de Saúde Mental – Um Estudo Transversal" inserido no XIII Congresso Internacional d'A Sociedade Portuguesa de Enfermagem de Saúde Mental em outubro de 2022

Apresentação do póster "Covid 19: Saúde Mental Positiva- Traço ou Estado – Um estudo longitudinal" inserido no XIV Congresso Internacional d'A Sociedade Portuguesa de Enfermagem de Saúde Mental em outubro de 2023

Prémio:

2º Lugar - apresentação do póster "Covid 19: Saúde Mental Positiva, Vulnerabilidade e Sexo" inserido no XIII Congresso Internacional d'A Sociedade Portuguesa de Enfermagem de Saúde Mental em outubro de 2022

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ANEXOS

Anexo I – Consentimento Livre e Informado

URV – UNIVERSIDADE DE ROVIRA E VIRGILI - TARRAGONA

Questionário de Literacia eSaúde Mental Positiva

Versão pessoa alvo de isolamento social – COVID 19

Caro cidadão

Estamos a contactá-lo(a) para solicitar a sua colaboração num estudo intitulado "**Literacia e Saúde Mental Positiva – Pessoa alvo de isolamento social**", que tem como objetivo avaliar o nível de conhecimento e o índice de saúde mental positiva das pessoas alvo de isolamento social devido ao COVID 19, com o intuito de identificarmos necessidades de intervenção ao nível da promoção da saúde mental.

Trata-se de um estudo que não envolve qualquer risco para os participantes e que poderá trazer benefícios para a prestação de cuidados, na medida em que nos irá fornecer dados sobre o nível da literacia e as dimensões de saúde mental que carecem de maior atenção por parte dos profissionais de saúde.

Com esta informação queremos dar-lhe a conhecer o projeto e o potencial impacto na melhoria da assistência às pessoas ao nível da promoção da saúde mental, pelo que lhe pedimos para responder a este questionário que lhe é apresentado.

O preenchimento de todos os itens é muito importante para a equipa de investigação e para os resultados do estudo.

Não há respostas certas ou erradas, apenas se pretende saber a sua opinião relativamente a cada item. As respostas ao questionário são anónimas e confidenciais.

A participação é voluntária: tem direito a decidir se quer ou não participar e poderá desistir a qualquer momento, sem qualquer transtorno.

As informações sobre o estudo serão disponibilizadas aos participantes que o solicitarem.

Ao prosseguir com o preenchimento do questionário está a dar o seu consentimento, por favor continue e no final submeta o questionário.

Muito obrigado, desde já pela sua colaboração.

Equipa de Investigação:

Cláudia Almeida – Doutoranda em Enfermagem e Saúde, na área de Saúde Mental (Universidade de Rovira i Virgili – Tarragona),

Professora Doutora Maria Teresa Lluch (Universidade de Barcelona),

Professor Doutor Carlos Sequeira (Escola Superior de Enfermagem do Porto),

Professora Doutora Carmen Ferre (Universidade de Rovira i Virgili – Tarragona) e

Professor Doutor André Novo (Instituto Politécnico de Bragança)

Aceito o preenchimento do questionário?

Por favor, selecione apenas uma das seguintes opções:

- ○ Sim
- ○ Não

Anexo II – Questionário de Caracterização Sociodemográfica

CARACTERIZAÇÃO SOCIODEMOGRÁFICA

1. Sexo?

Por favor, selecione **apenas uma** das seguintes opções:

- ○ Feminino
- ○ Masculino

2. Idade?

Neste campo só é possível introduzir números.
Por favor, escreva aqui a sua resposta:

[ ]

3. Estado Civil?

Por favor, selecione **apenas uma** das seguintes opções:

- ○ Solteiro(a)
- ○ Casado(a)/União de facto
- ○ Divorciado/Separado(a)
- ○ Viúvo(a)

4. Número de filhos?

Por favor, selecione **apenas uma** das seguintes opções:

- ○ 0
- ○ 1
- ○ 2
- ○ 3 ou mais

5. Formação académica:

Por favor, selecione **apenas uma** das seguintes opções:

Ensino Básico 1º ciclo	Ensino Básico 2º/3º ciclo	Ensino Secundário	Licenciatura	Mestrado	Doutoramento
○	○	○	○	○	○

6. **Naturalidade:**

Por favor, responda às seguintes questões:

País:

- ◯ Portugal
- ◯ Outro

Concelho:

- ◯ Bragança
- ◯ Macedo de Cavaleiros
- ◯ Mirandela
- ◯ Alfândega da Fé
- ◯ Carrazeda de Ansiães
- ◯ Freixo de Espada á Cinta
- ◯ **Miranda**
- ◯ Mogadouro
- ◯ Torre de Moncorvo
- ◯ Vila Flor
- ◯ Vimioso
- ◯ Vinhais

7. **Agregado familiar:**

Neste campo só é possível introduzir números
Por favor, responda quantas pessoas fazem parte do seu agregado familiar (incluindo-se no total):

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ mais de 4

8. **Situação laboral?**

Por favor, selecione **apenas uma** das seguintes opções:

- ◯ Empregado
- ◯ Empregador/Empresário
- ◯ Desempregado(a)
- ◯ Reformado(a)
- ◯ Estudante

9. **Se está empregado (a), qual a sua profissão?**

10. Qual a sua carga horária semanal?
Neste campo só é possível introduzir números. Por favor, responda quantas horas trabalha por semana

11. Qual rendimento mensal do seu agregado familiar?
- ◯ Menos de 500 Euros mensais
- ◯ 500-1000 Euros mensais
- ◯ 1000-1500 Euros mensais
- ◯ Mais de 1500 Euros mensais

12. Tipo de habitação em que vive?
Por favor, selecione **apenas uma** das seguintes opções:

- ◯ Alojamento próprio
- ◯ Alojamento institucional

13. No caso de viver em alojamento próprio refira o tipo de alojamento:
Por favor, selecione **apenas uma** das seguintes opções:

- ◯ Apartamento
- ◯ Moradia
- ◯ Quarto
- ◯ Outro Especificar_____

14. Está ou esteve em quarentena ou isolamento social devido a suspeita por COVID 19?

- ◯ Sim
- ◯ Não

15. Refira qual a sua **maior** preocupação relacionado com o facto de se encontrar confinado
Por favor, selecione **apenas duas** das seguintes opções – as que considera mais importantes:

- ◯ Saúde
- ◯ Família
- ◯ Situação Económica
- ◯ Condição laboral

16. Foi-lhe diagnosticada infecção por COVID 19?

- ◯ Sim
- ◯ Não

HISTÓRIA DE DOENÇA MENTAL

17. Tem algum problema de Saúde Mental?

Por favor, selecione **apenas uma** das seguintes opções:

- ○ Sim
- ○ Não

17.1 Se sim qual?

Por favor, escreva aqui a sua resposta:

18. Nos últimos 2 meses recorreu a algum serviço de saúde, devido a um problema de Saúde Mental?

Por favor, selecione **apenas uma** das seguintes opções:

- ○ Sim
- ○ Não

19. Já teve algum acompanhamento psicológico ou psiquiátrico?

Por favor, selecione **apenas uma** das seguintes opções:

- ○ Sim
- ○ Não

20. Tem ou teve familiares com doença mental?

Por favor, selecione **apenas uma** das seguintes opções:

- ○ Sim
- ○ Não

20.1 Quem?

Responda a esta pergunta apenas se respondeu "Sim" na questão 20
Por favor, escreva aqui a sua resposta

COMPORTAMENTOS DE SAÚDE RELATIVAMENTE AO ÚLTIMO MÊS

21. Considera que dorme as horas suficientes para as suas necessidades?

Por favor, selecione **apenas uma** das seguintes opções:

- ○ Sim
- ○ Não

22. Número médio de horas de sono por dia?

Por favor, selecione **apenas uma** das seguintes opções:

- ◯ **menos de 4**
- ◯ **4 a 6 horas por dia**
- ◯ **6 a 8 horas por dia**
- ◯ mais de 8 horas por dia

23. Toma medicação para dormir?

Por favor, selecione **apenas uma** das seguintes opções:

- ◯ Sim
- ◯ Não

24. Toma medicação de forma regular para algum problema de saúde mental?

Por favor, selecione **apenas uma** das seguintes opções:

- ◯ Sim
- ◯ Não

25.1 Qual?

Responda a esta pergunta apenas se respondeu "Sim" na questão 25

Por favor, escreva aqui a sua resposta:

25. Tem alguma relação afetiva significativa?

Por favor, selecione **apenas uma** das seguintes opções:

- ◯ Sim
- ◯ Não

26. Se a sua resposta foi sim

Por favor, selecione **até duas** das seguintes opções:

- ◯ Família
- ◯ Amigos íntimos/namorado(a)/cônjuge
- ◯ Amigos
- ◯ Outro

27. Está satisfeito com a sua relação afetiva?

Por favor, selecione **apenas uma** das seguintes opções:

- ◯ Sim
- ◯ Não

28. Prática de exercício físico

Pratica algum tipo de exercício físico/desporto de forma regular?

Por favor, selecione **apenas uma** das seguintes opções:

- ◯ Sim
- ◯ Não

29. Considera a sua alimentação Saudável?

Por favor, selecione **apenas uma** das seguintes opções:

- ◯ Sim
- ◯ Não

30. Como classifica o tipo de informação disponibilizada pelos serviços de saúde em relação a cada uma das seguintes temáticas?

31.1 Lavavam das mãos, uso da máscara, etiqueta respiratória

- ◯ Excelente
- ◯ Boa
- ◯ Razoável
- ◯ Insuficiente
- ◯ Nenhuma

31.2 Vigilância de saúde

- ◯ Excelente
- ◯ Boa
- ◯ Razoável
- ◯ Insuficiente
- ◯ Nenhuma

31.3 Cuidados a ter com o isolamento social

- ◯ Excelente
- ◯ Boa
- ◯ Razoável
- ◯ Insuficiente
- ◯ Nenhuma

31.4 Necessidade de vigilância do estado emocional (stress, ansiedade, tristeza, medo)

- ◯ Excelente
- ◯ Boa
- ◯ Razoável
- ◯ Insuficiente
- ◯ Nenhuma

31.5 Estratégias para lidar com situações de stress

- ○ Excelente
- ○ Boa
- ○ Razoável
- ○ Insuficiente
- ○ Nenhuma

31.6 Informação sobre sinais e sintomas indicadores de necessidade de ajuda

- ○ Excelente
- ○ Boa
- ○ Razoável
- ○ Insuficiente
- ○ Nenhuma

31.7 Informação sobre recursos de ajuda em saúde mental

- ○ Excelente
- ○ Boa
- ○ Razoável
- ○ Insuficiente
- ○ Nenhuma

Anexo III – Questionário de Saúde Mental Positiva (PMHQ)

QUESTIONÁRIO DE SAÚDE MENTAL POSITIVA

(Lluck,2003; Sequeira & Carvalho 2009)

Este questionário contém uma série de afirmações, sobre a sua forma de pensar, sentir e agir que são mais ou menos frequentes em cada um. Para responder, leia cada frase e responda de acordo com a frequência que melhor caracteriza o seu caso, de acordo com as seguintes possibilidades de resposta:

1 «Sempre ou quase sempre»; **2 «Na maioria das vezes»**; **3 «Algumas vezes»**; **4 «Raramente ou nunca»**

Código: Q
__|__|__|__

	Itens	1	2	3	4
1	Para mim, é difícil aceitar os outros quando têm atitudes diferentes das minhas	○	○	○	○
2	Os problemas bloqueiam-me facilmente	○	○	○	○
3	Para mim é difícil escutar os problemas das pessoas	○	○	○	○
4	Gosto de mim como sou	○	○	○	○
5	Sou capaz de controlar-me quando tenho emoções negativas	○	○	○	○
6	Sinto-me capaz de explodir	○	○	○	○
7	Para mim a vida é aborrecida e monótona	○	○	○	○
8	Para mim é difícil dar apoio emocional	○	○	○	○
9	Tenho dificuldades em estabelecer relações interpessoais satisfatórias com algumas pessoas	○	○	○	○
10	Preocupa-me muito o que as pessoas pensam de mim	○	○	○	○
11	Acredito que tenho muita capacidade para colocar-me no lugar dos outros e compreender as suas respostas	○	○	○	○
12	Vejo o meu futuro com pessimismo	○	○	○	○
13	As opiniões dos outros influenciam-me muito na hora de tomar as minhas decisões	○	○	○	○
14	Considero-me uma pessoa menos importante do que as outras pessoas que me rodeiam	○	○	○	○
15	Sou capaz de tomar as decisões por mim mesmo	○	○	○	○
16	Procuro retirar os aspetos positivos das coisas "más" que me acontecem	○	○	○	○
17	Procuro melhorar como pessoa	○	○	○	○
18	Considero-me um(a) bom/boa conselheiro(a)	○	○	○	○
19	Preocupa-me que as pessoas me critiquem	○	○	○	○
20	Considero-me uma pessoa sociável	○	○	○	○

21	Sou capaz de controlar-me quando tenho pensamentos negativos	○	○	○	○
22	Sou capaz de manter um bom autocontrolo nas situações de conflito que surgem na minha vida	○	○	○	○
23	Penso que sou uma pessoa digna de confiança	○	○	○	○
24	Para mim é difícil entender os sentimentos dos outros	○	○	○	○
25	Penso nas necessidades dos outros	○	○	○	○
26	Na presença de pressões desfavoráveis do exterior sou capaz de manter o meu equilíbrio pessoal	○	○	○	○
27	Quando surgem alterações na minha vida procuro adaptar-me	○	○	○	○
28	Perante um problema sou capaz de solicitar informação	○	○	○	○
29	As alterações que ocorrem habitualmente no meu quotidiano estimulam-me	○	○	○	○
30	Tenho dificuldades em relacionar-me abertamente com os meus professores/chefes	○	○	○	○
31	Penso que sou um(a) inútil e que não sirvo para nada	○	○	○	○
32	Procuro desenvolver e potenciar as minhas boas atitudes	○	○	○	○
33	Tenho dificuldades em ter opiniões pessoais	○	○	○	○
34	Quando tenho que tomar decisões importantes sinto-me muito inseguro(a)	○	○	○	○
35	Sou capaz de dizer não quando o quero dizer	○	○	○	○
36	Quando tenho um problema procuro arranjar soluções possíveis	○	○	○	○
37	Gosto de ajudar os outros	○	○	○	○
38	Sinto-me insatisfeito(a) comigo mesmo(a)	○	○	○	○
39	Sinto-me insatisfeito(a) com o meu aspeto físico	○	○	○	○

Anexo IV – Escala de Vulnerabilidade Psicológica (PVS)

ESCALA DE VULNERABILIDADE PSICOLÓGICA

(Nogueira, Barros & Sequeira, 2017)

Para responder, leia cada frase e responda de acordo com as seguintes possibilidades de resposta:

1 «Discordo totalmente»; **2 «Discordo parcialmente»**; **3 «Nem concordo nem discordo»**; **4 «Concordo parcialmente»**; **5 «Concordo totalmente»**

Código: Q __|__|__|__

	Itens	**1**	**2**	**3**	**4**	**5**
1	Quando não consigo atingir os meus objetivos, sinto-me um fracasso como pessoa.	○	○	○	○	○
2	Sinto que mereço melhor tratamento do que aquele que normalmente recebo dos outros.	○	○	○	○	○
3	Tenho plena consciência de me sentir frequentemente inferior aos outros.	○	○	○	○	○
4	Preciso da aprovação dos outros para me sentir bem comigo mesmo.	○	○	○	○	○
5	Tenho tendência para definir metas demasiado elevadas e depois a sentir-me frustrado ao tentar alcançá-las.	○	○	○	○	○
6	Sinto-me frequentemente ressentido quando outros se aproveitam de mim.	○	○	○	○	○

Anexo V – Questionário "O que é importante para uma boa saúde mental?" (MHPK-10)

O QUE É IMPORTANTE PARA UMA BOA SAÚDE MENTAL?

(Chaves, Sequeira & Duarte, 2019)

Seguem abaixo 10 declarações sobre coisas que podem ser importantes para uma boa saúde mental. Para responder, leia cada frase e responda de acordo com as seguintes possibilidades de resposta:

1 «Discordo totalmente»; **2 «Discordo parcialmente»**; **3 «Nem concordo nem discordo»**; **4 «Concordo parcialmente»**; **5 «Concordo totalmente»**; **N/A «Não aplicável»**

Código: Q __|__|__|__

	Nesta escala quão correta é cada declaração	**1**	**2**	**3**	**4**	**5**	**N/A**
1	Lidar com situações stressantes de uma forma adequada	○	○	○	○	○	○
2	Acreditar em si próprio	○	○	○	○	○	○
3	Ter boas rotinas de sono	○	○	○	○	○	○
4	Tomar decisões baseado na sua própria vontade	○	○	○	○	○	○
5	Estabelecer limites para suas próprias ações	○	○	○	○	○	○
6	Sentir-se que pertence a uma comunidade	○	○	○	○	○	○
7	Dominar os seus pensamentos negativos	○	○	○	○	○	○
8	Definir limites sobre o que é aceitável para si	○	○	○	○	○	○
9	Sentir-se valioso, independentemente das suas próprias realizações	○	○	○	○	○	○
10	Vivenciar o sucesso escolar /profissional	○	○	○	○	○	○

Anexo VI – Questionário de Conhecimento de Saúde Mental (MHKQ)

QUESTIONÁRIO DE CONHECIMENTO DE SAÚDE MENTAL

(Chaves, Sequeira & Duarte, 2019)

Para responder, leia cada frase e responda de acordo com as seguintes possibilidades de resposta:

1 «Discordo totalmente»; **2 «Discordo parcialmente»**; **3 «Nem concordo nem discordo»**; **4 «Concordo parcialmente»**; **5 «Concordo totalmente»**

Código: Q __|__|__|__

	Itens	**1**	**2**	**3**	**4**	**5**
1	A saúde mental é uma componente da saúde	○	○	○	○	○
2	Os distúrbios mentais são causados por pensamentos incorretos	○	○	○	○	○
3	Muitas pessoas têm problemas mentais, mas não se apercebem	○	○	○	○	○
4	Todos os distúrbios mentais são causados por stressores externos	○	○	○	○	○
5	Componentes da saúde mental incluem inteligência normal, humor estável, uma atitude positiva, relações interpessoais de qualidade e adaptabilidade	○	○	○	○	○
6	A maioria dos distúrbios mentais não pode ser curada	○	○	○	○	○
7	Devem ser procurados serviços psicológicos ou psiquiátricos se suspeitarmos da presença de problemas ou distúrbios mentais	○	○	○	○	○
8	Problemas psicológicos podem ocorrer em qualquer idade	○	○	○	○	○
9	Distúrbios mentais e problemas psicológicos não podem ser evitados	○	○	○	○	○
10	Nos distúrbios mentais graves (por exemplo, esquizofrenia), os medicamentos devem ser tomados apenas por um determinado período de tempo	○	○	○	○	○
11	Atitudes positivas, boas relações interpessoais e um estilo de vida saudável podem ajudar a manter a saúde mental	○	○	○	○	○
12	Indivíduos com história familiar de distúrbios mentais têm maior risco de problemas psicológicos e distúrbios mentais	○	○	○	○	○
13	Problemas psicológicos nos adolescentes não influenciam os resultados académicos	○	○	○	○	○
14	É improvável que indivíduos de meia-idade ou idosos desenvolvam problemas psicológicos e distúrbios mentais	○	○	○	○	○
15	Indivíduos com fraco temperamento são mais propensos a ter problemas mentais	○	○	○	○	○

16	Problemas ou distúrbios mentais podem ocorrer quando um indivíduo está sob stress psicológico ou enfrenta uma situação significativa na sua vida (por exemplo, morte de membros da família)	○	○	○	○	○

Atividades de promoção da saúde mental		**Sim**	**Não**
17	Já ouviu falar sobre o Dia Mundial da Saúde Mental?	○	○
18	Já ouviu falar do Dia Internacional contra o Abuso de Drogas e o Tráfico Ilícito de Drogas?	○	○
19	Já ouviu falar sobre o Dia Internacional de Prevenção do Suicídio?	○	○
20	Já ouviu falar do Dia Mundial do Sono?	○	○

Anexo VII – Certificado de Estágio Internacional de Investigação - Menção Internacional

INSTITUTO POLITÉCNICO DE BRAGANÇA
Escola Superior de Saúde

André Filipe Morais Pinto Novo
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Adjunct Professor of the Superior School of Health of Polytechnic Institute of Bragança
PhD. in Nursing || Master in Rehabilitation Nursing
Avenida D. Afonso V – 5300-121 Bragança, Portugal

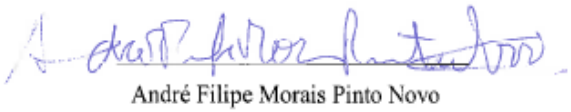
INTERNSHIP IN A FOREIGN INSTITUTION

Cláudia Patrícia Pires Almeida, Phd. student from Rovira I Virgili carried out an internship at the Superior School of Health of Polytechnic Institute of Bragança from 30/01/2023 to 30/04/2023, under my supervision.

Her work was focused on:

- Regular meetings with the internship supervisor;
- Collect of data in Unidade Local de Saúde do Nordeste;
- Conception, planning, and data analysis under the thematic research of "Positive Mental Health";
- Preparation to submission for publishing of the manuscript "Positive Mental Health - Trait or State - A Longitudinal Study" to the Journal of Psychiatric Research".

Cláudia Almeida has consistently exhibited technical and interpersonal skills that surpass the norm. Given her notable competencies and dedication, I am confident in her ability to fulfill her doctoral requirements and achieve the objectives set forth by her supervisors within the stipulated timeline.



André Filipe Morais Pinto Novo

Bragança, 30th April of 2024

Anexo VIII – Parecer da Comissão de Ética para a realização do estudo

REPÚBLICA PORTUGUESA
SAÚDE

SNS
SERVIÇO NACIONAL DE SAÚDE

ULSNE

Reunião CA 24.9.2020

PARECER Nº. 24/2020

Dr. Carlos Alberto Vaz
Presidente do
Conselho de Administração

Reapreciação do estudo: Criação e Avaliação de um programa de Literacia e Saúde Mental Positiva em pessoas alvo de isolamento social devido à COVID-19.

Conclusões

Face ao exposto, a CE delibera:

- nada a opor do ponto de vista ético.

-solicitar o compromisso de entrega (preferencialmente em suporte digital) a esta CE de um exemplar do resultado final do estudo.

Aprovado em reunião do dia 16 de setembro de 2020, por unanimidade.

Presidente: Dra. Joaquina Baltazar

Dra. Maria de Jesus Machado Lopes, Enfª. Carla Grande, Dra. Manuela Fernandes,

Dra. Maria Ângela Aragão, Dra. Liseta Gonçalves

Presente ainda para secretariar a reunião: Assunção Moura Esteves

Unidade Local de Saúde do Nordeste EPE
Praça Cavaleiro Ferreira, 5301-862 Bragança, PORTUGAL
TEL. + 351 273 302 850 FAX + 351 273 302 858 EMAIL secretariado.rede@ulsnemin-saude.pt www.ulsnordeste.pt

Anexo IX – Comprovativo da Submissão do 3º Artigo no Journal of Psychiatric Research

JPSYCHIATRRES-D-24-01658 - Confirming your submission to Journal of Psychiatric Research

JR em.jpsychiatrres.0.8c73b2.48d19baa@editorialmanager.com <em.jpsychiatrres.0.8<

02/07/2024 17:28

Para: Claudia Almeida

This is an automated message.

COVID-19: POSITIVE MENTAL HEALTH - TRAIT OR STATE. A LONGITUDINAL STUDY

Dear Dr Almeida,

We have received the above referenced manuscript you submitted to Journal of Psychiatric Research. It has been assigned the following manuscript number: **JPSYCHIATRRES-D-24-01658**.

To track the status of your manuscript, please log in as an author at https://www.editorialmanager.com/jpsychiatrres/, and navigate to the "Submissions Being Processed" folder.

Thank you for submitting your work to this journal.

Kind regards,
Journal of Psychiatric Research

Confirming handling editor for submission to Journal of Psychiatric Research

JR em.jpsychiatrres.0.8c78b9.57d1d5ed@editorialmanager.com <em.jpsychiatrres.0.8<

03/07/2024 14:55

Para: Claudia Almeida

This is an automated message.

Manuscript Number: **JPSYCHIATRRES-D-24-01658**

COVID-19: POSITIVE MENTAL HEALTH - TRAIT OR STATE. A LONGITUDINAL STUDY

Dear Dr Almeida,

The above referenced manuscript will be handled by American Managing Editor Research fellow Blerona Shaipi.

To track the status of your manuscript, please log into Editorial Manager at https://www.editorialmanager.com/jpsychiatrres/.

Thank you for submitting your work to this journal.

Kind regards,

Journal of Psychiatric Research

Anexo X – Comprovativos de Disseminação da Investigação

Universidade Rovira i Virgili

UNIVERSITAT ROVIRA I VIRGILI

ENCONTRO DE DOUTORANDOS 2021

SEMINÁRIO DE INVESTIGAÇÃO EM ENFERMAGEM E SAÚDE

Saúde Mental em Construção

SAÚDE MENTAL EM CONSTRUÇÃO

Webinar

08-01-2021

COMISSÃO CIENTÍFICA:

Carlos Sequeira (ESEP)
Carme Ferré-Grau (URV – Espanha)
Francisco Sampaio (ESS-UFP)
Juan Roldán Merino (UB – Espanha)
Lia Sousa (ESSVA)
Núria Albacar Riobóo (URV – Espanha)
Odete Araújo (ESE-UM)
Paulo Seabra (ESEL)
Pilar Montesó Curto (URV – Espanha)
Teresa Lluch Canut (UB – Espanha)

COMISSÃO ORGANIZADORA:

Ana Paula Oliveira (ESS-IPP)
Emanuel Pereira (ULSCB; ESALD-IPCB)
Joana Nobre (ULSNA; ESS-IPP)

14:00 – 14:15 | **Sessão de Abertura**
Prof. Dr. Carlos Sequeira | Escola Superior de Enfermagem do Porto
Prof. Dra. Carme Ferré-Grau | Universidade de Rovira i Virgili

14:15 – 15:45 | **Mesa 1 – Teses de Doutoramento Finalizadas: O fim do percurso**
Moderador: Ana Paula Enes de Oliveira

- Preletor: Lara Pinho **"Eficácia do Treino Metacognitivo nos delírios, alucinações, insight cognitivo e funcionalidade na esquizofrenia"**
  Comentadores: Prof. Dr. Francisco Sampaio | Escola Superior de Saúde – UFP
  Prof. Dra. Odete Araújo | Escola Superior de Enfermagem – UM
- Preletor: Joana Coelho **"Desenvolvimento da relação de ajuda enquanto intervenção psicoterapêutica de Enfermagem"**
  Comentadores: Prof. Dra. Lia Sousa | Escola Superior de Saúde do Vale do Ave
  Prof. Dr. Paulo Seabra | Escola Superior de Enfermagem de Lisboa

15:45 – 15:50 | **Intervalo**

15:50 – 17:50 | **Mesa 2 – Teses de Doutoramento em Desenvolvimento: Relatórios de Atividades**
Moderador: Emanuel Pereira
Comentadores: Prof. Dr. Carlos Sequeira | Escola Superior de Enfermagem do Porto
Prof. Dra Carme Ferré-Grau | Universidade de Rovira i Virgili
Prof. Dra Teresa Lluch Canut | Universidade de Barcelona

- Preletor: Sónia Teixeira **"Programa de saúde mental positiva para adultos – Mentis Plus+"**
- Preletor: Catarina Amaral **"Literacia dos profissionais de saúde em segurança dos cuidados e impacto da implementação do "Multiprofissional guide" questionário de atitudes sobre a compreensão da segurança do doente"**
- Preletor: Ana Paula Enes de Oliveira **"Comportamentos Aditivos e Saúde Mental dos Estudantes do Ensino Superior no Alentejo – Contributos para uma Intervenção de Enfermagem Promotora de Saúde"**
- Preletor: Joana Nobre **"A Literacia e a Saúde Mental Positiva dos Adolescentes"**
- Preletor: Cláudia Almeida **"Saúde mental positiva em doentes suspeitos de infeção por COVID-19"**
- Preletor: Bruno Santos **"Efetividade da reestruturação cognitiva em pessoas com sintomatologia depressiva: uma scoping review"**

17:50 – 17:55 | **Intervalo**

17:55 – 18:55 | **Mesa 3 – Projetos de Teses de Doutoramento: O início do percurso**
Moderador: Joana Nobre
Comentadores: Prof. Dra. Núria Albacar Rioboó | Universidade de Rovira i Virgili
Prof. Dra Pilar Montesó Curto | Universidade de Rovira i Virgili
Prof. Dr. Juan Roldán Merino | Universidade de Barcelona

- Preletor: Tiago Costa **"Development and evaluation of a Mental Health First Aid Training Program for students in the upper secondary school context"**
- Preletor: Catarina Cordeiro **"Desenvolvimento e validação de um programa de treino para reabilitação muscular do soalho pélvico"**
- Preletor: Emanuel Pereira **"Efetividade de um Aplicativo Informático (APP) de Saúde Mental+: *in@mentalhealth+*"**

18:55 – 19:15 | **Sessão de Encerramento**
Prof. Dr. Carlos Sequeira | Escola Superior de Enfermagem do Porto
Prof. Dra. Carme Ferré-Grau | Universidade de Rovira i Virgili

UNIVERSITAT ROVIRA i VIRGILI
Departament d'Infermeria

UNIVERSITAT ROVIRA i VIRGILI
Grup de Recerca en Infermeria Avançada
Departament d'Infermeria

Generalitat de Catalunya
Departament de Recerca i Universitats

El Departament d'Infermeria de la URV atorga aquest certificat com a **PONENT** (20 minuts) al **XIV Seminari d'Investigació Internacional i V Workshop del Programa de doctorat en Infermeria i Salut**, realitzat a Tarragona el 23 de maig de 2024 a:

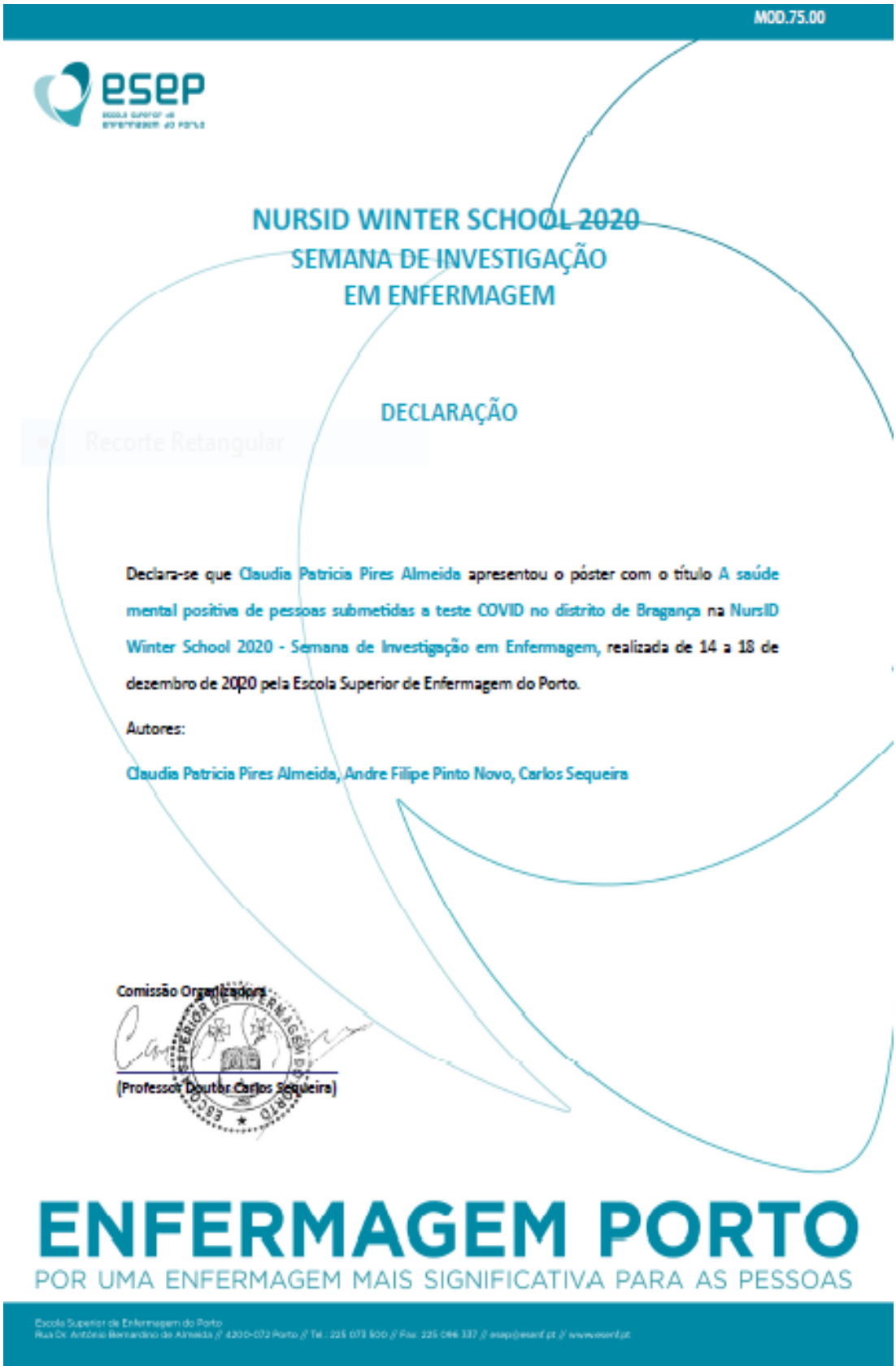
CLÀUDIA PATRÍCIA PIRES ALMEIDA

Títol de la ponència: Salut Mental Positiva en persones amb restricció social: el cas de la COVID 19

Dra. Maria Dolors Burjalés Martí
Degana de la Facultat d'Infermeria

Dra. Inma de Molina Fernández
Responsable del Grup de Recerca Infermeria Avançada

Dra. Carme Ferré Grau
Coordinadora del Programa de doctorat Infermeria i Salut



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NURSID WINTER SCHOOL 2020
SEMANA DE INVESTIGAÇÃO
EM ENFERMAGEM

DECLARAÇÃO

Declara-se que Claudia Patricia Pires Almeida apresentou o póster com o título A saúde mental positiva de pessoas submetidas a teste COVID no distrito de Bragança na NursID Winter School 2020 - Semana de Investigação em Enfermagem, realizada de 14 a 18 de dezembro de 2020 pela Escola Superior de Enfermagem do Porto.

Autores:

Claudia Patricia Pires Almeida, Andre Filipe Pinto Novo, Carlos Sequeira

Comissão Organizadora

(Professor Doutor Carlos Sequeira)

ENFERMAGEM PORTO
POR UMA ENFERMAGEM MAIS SIGNIFICATIVA PARA AS PESSOAS

Escola Superior de Enfermagem do Porto
Rua Dr. António Bernardino de Almeida, 400-072 Porto | Tel.: 225 073 600 | Fax: 225 086 337 | esep@esenf.pt | www.esenf.pt

Certificado

Para os devidos efeitos certifica-se que

Cláudia Patrícia Pires Almeida

apresentou o póster "COVID-19: Impacto da Literacia e da adoção de comportamentos promotores de Saúde Mental – Um Estudo Transversal" da autoria de **Cláudia Patrícia Pires Almeida; André Filipe Morais Pinto Novo; Carlos Alberto Cruz Sequeira & Maria Teresa Lluch-Canut**, no Concurso de Pósteres inserido no XIII Congresso Internacional d'A Sociedade Portuguesa de Enfermagem de Saúde Mental, subordinado ao tema "Saúde Mental: É preciso agir!", realizado de 26 a 28 de Outubro de 2022 em Funchal, Madeira, Portugal.

Porto, 28 de Outubro de 2022

Presidente do Congresso

P´la Comissão Científica

A SOCIEDADE PORTUGUESA DE ENFERMAGEM DE SAÚDE MENTAL
(Diário da República II Série n.º 174 de 10.09.2007)
www.aspesm.org

Certificado

2.º Prémio

Para os devidos efeitos certifica-se que

Cláudia Patrícia Pires Almeida

obteve o **2.º prémio** com o póster "COVID 19: Saúde Mental Positiva, Vulnerabilidade e Sexo" da autoria de **Cláudia Patrícia Pires Almeida; André Filipe Morais Pinto Novo; Carlos Alberto Cruz Sequeira, Maria Teresa Lluch-Canut & Carme Ferré-Grau**, no Concurso de Pósteres inserido no XIII Congresso Internacional d'A Sociedade Portuguesa de Enfermagem de Saúde Mental, subordinado ao tema "Saúde Mental: É preciso agir!", realizado de 26 a 28 de Outubro de 2022 em Funchal, Madeira, Portugal.

Porto, 28 de Outubro de 2022

Presidente do Congresso

P'la Comissão Científica

A SOCIEDADE PORTUGUESA DE ENFERMAGEM DE SAÚDE MENTAL
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Certificado

Para os devidos efeitos certifica-se que

Cláudia Patrícia Pires Almeida

apresentou o póster "COVID 19: Saúde Mental Positiva, Vulnerabilidade e Sexo" da autoria de **Cláudia Patrícia Pires Almeida; André Filipe Morais Pinto Novo; Carlos Alberto Cruz Sequeira, Maria Teresa Lluch-Canut & Carme Ferré-Grau**, no Concurso de Pósteres inserido no XIII Congresso Internacional d'A Sociedade Portuguesa de Enfermagem de Saúde Mental, subordinado ao tema "Saúde Mental: É preciso agir!", realizado de 26 a 28 de Outubro de 2022 em Funchal, Madeira, Portugal.

Porto, 28 de Outubro de 2022

Presidente do Congresso

P´la Comissão Científica

A SOCIEDADE PORTUGUESA
DE ENFERMAGEM DE SAÚDE MENTAL
(Diário da República II Série n.º 174 de 10.09.2007)
www.aspesm.org

Certificado

Para os devidos efeitos certifica-se que

Cláudia Almeida

apresentou o Póster "COVID-19: saúde mental positiva – traço ou estado? Um estudo longitudinal", da autoria de Cláudia Almeida; André Novo; Maria Teresa Lluch Canut ; Carme Ferré-Grau & Carlos Sequeira, no Concurso de Pósteres inserido no XIV Congresso Internacional d'A Sociedade Portuguesa de Enfermagem de Saúde Mental, subordinado ao tema "Saúde Mental: uma prioridade para todos", realizado de 18 a 20 de Outubro de 2023 em Évora, Portugal.

Porto, 20 de Outubro de 2023

P'la Comissão Científica

O Presidente do Congresso

A SOCIEDADE PORTUGUESA DE ENFERMAGEM DE SAÚDE MENTAL
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ENCONTRO INTERNACIONAL DE LITERACIA E SAÚDE MENTAL POSITIVA

DECLARAÇÃO

Declara-se que Cláudia Almeida apresentou o projeto: Literacia e saúde mental em situação de crise no I Encontro Internacional de Literacia e Saúde Mental Positiva, organizado nos dias 2 & 3 de junho de 2020, pela Escola Superior de Enfermagem do Porto.

O Coordenador do Serviço de Gestão
da Produção e Divulgação do Conhecimento

Francisco Vieira

ESCOLA SUPERIOR DE ENFERMAGEM DO PORTO

ENFERMAGEM PORTO
POR UMA ENFERMAGEM MAIS SIGNIFICATIVA PARA AS PESSOAS